

THE ESSENCE OF COOPERATION: ESTABLISHING A FRAMEWORK
FOR SUCCESS IN MILITARY REGIMES

BY
GEORGE COLE

A THESIS PRESENTED TO THE FACULTY OF
THE SCHOOL OF ADVANCED AIR AND SPACE STUDIES
FOR THE COMPLETION OF GRADUATION REQUIREMENTS

SCHOOL OF ADVANCED AIR AND SPACE STUDIES

AIR UNIVERSITY

MAXWELL AIR FORCE BASE, ALABAMA

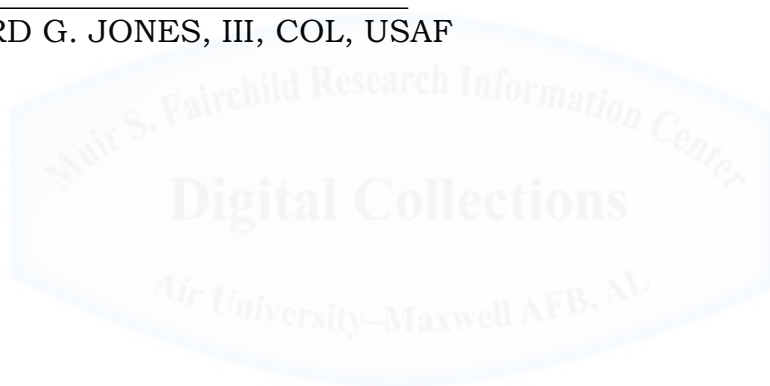
JUNE 2015

APPROVAL

The undersigned certify that this thesis meets master's-level standards of research, argumentation, and expression.

STEPHEN E. WRIGHT, PHD

HOWARD G. JONES, III, COL, USAF



DISCLAIMER

The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the US Government, Department of Defense, the United States Air Force, or Air University.



ABOUT THE AUTHOR

Major George P. Cole, III, a student at the Air Force's School of Advanced Air and Space Studies (SAASS) at Maxwell AFB, Alabama, is an aircraft maintenance officer in the US Air Force Reserve. Major Cole entered the Air Force in 2002 upon graduation from the United States Air Force Academy. He completed over eight years on active duty, with multiple deployments and assignments at the unit and major command staff level before transitioning to the AF Reserve in 2011. In his last active duty assignment, he served as maintenance operations officer for the stand-up of the multinational Heavy Airlift Wing in Papa, Hungary. As a reservist, he served as the individual mobilization augmentee to the Director of Logistics, Eighteenth Air Force. He has supported C-17A, C-5B, C-5M, and KC-10 mission systems. Upon graduation from SAASS, Major Cole will assume command of the 307th Maintenance Squadron at Barksdale AFB, Louisiana, as an Air Reserve Technician.



ACKNOWLEDGMENTS

I would like to recognize several people whose support made this project possible. Several key leaders granted me interviews concerning their respective areas of expertise and provided a great deal of information. I owe each of them a debt of gratitude. These men are Lt Gen (ret) Ralph Jodice, II, Col (ret) John Zazworsky, Col (ret) Scott Shapiro, and Mr Randy Eshelman. I would also like to acknowledge the SAASS faculty for this incredible academic experience. This program has truly opened my eyes to new ways of thinking about the world. My thesis advisor, Dr. Stephen “Wilbur” Wright, motivated, instructed, and directed me through this project with patience and grace. Dr. Wright’s academic rigor, encouragement, and knowledge have been priceless. My reader and writing mentor, Col Howard Jones, helped me improve my skills and gain a deeper appreciation for the craft of writing throughout the year. My wife and father both faithfully provided assistance editing and proofreading. Finally, my family, friends, and church all kept me grounded and sustained me with their love and support. I thank you all.



ABSTRACT

The current literature addressing the need to build partnership capacity in the military fails to acknowledge certain foundational factors that enable cooperation. As a result, the DoD lacks a framework at the strategic level to accurately assess potential partnerships and their likelihood of success. As this analysis proves, cooperation is not guaranteed, especially in military partnerships. Without a framework to assess the likelihood of success of a potential partnership, the DoD risks engaging in multinational endeavors more likely to fail than succeed.

This paper examines three case studies – the Strategic Airlift Capability (SAC) program, the NATO Response Force (NRF), and the Wideband Global Satellite (WGS) Communications program – through the lens of international regime theory. As the case studies demonstrate, factors for regime success vary according to three distinct phases of the regime's life cycle – regime formation, transition to operations, and sustainment. Strategists should consider the relevant factors in each of the three phases with a life cycle perspective before engaging in partnership initiatives. Ignoring the relevant factors in any of the three phases may result in a failed initiative.

The similarities between the highly successful WGS and SAC programs suggest that, despite their vast functional differences, successful military regimes share causal variables. The particular variables include the power-based variables of egoistic self-interest, political power, and issue-area specificity. The complete absence of these same characteristics in the flailing NRF further strengthens the case that these variables are both necessary and sufficient for regime success. Finally, the case study results offer the basis for a framework to assess current and future military partnership endeavors.

CONTENTS

Chapter	Page
DISCLAIMER	ii
ABOUT THE AUTHOR.....	iii
ACKNOWLEDGMENTS	iv
ABSTRACT	v
Introduction	1
1 Theory and Methodology for Evaluating International Regimes ..	5
2 Case 1 – The Strategic Airlift Capability.....	18
3 Case 2 – The NATO Response Force	35
4 Case 3 – Wideband Global SATCOM.....	49
5 Conclusions and Proposed Framework.....	60
Bibliography	72

Illustrations

Table

1 SAC Program Totals by Year	23
------------------------------------	----

Figure

1 National Shares of SAC Flight Hours.....	21
--	----

Introduction

Since 2006, the Department of Defense (DoD) has continued to emphasize the need to “build partnership capacity” among allies across various functional areas. As a follow-up to the Quadrennial Defense Review in 2006, the DoD issued the Building Partnership Capacity Roadmap in May of 2006. The Roadmap called for a “shift of emphasis needed to meet the new strategic environment,” outlining tasks and due dates for building partnership capacity objectives.¹ Charged with this directive, civilian and military leaders subsequently issued guidance to the services and combatant commanders. As a result, the Air Force and other services embarked on various activities ranging from training and exercising with partner nations to engagement in the form of bilateral talks, workshops, and conferences. A significant commitment to this initiative still exists today in terms of manpower and budget.²

One method of building partnership capacity (BPC) includes formal partnerships based on a shared need for a particular capability. These partnerships are often formally negotiated, long-term endeavors. As this analysis explains, these formal, multinational partnerships take on the characteristics of international regimes. Three examples include the Strategic Airlift Capability (SAC) Consortium, the North Atlantic Treaty Organization (NATO) Response Force (NRF), and the Wideband Global SATCOM (WGS) Program.

Corresponding to the increase in resources dedicated to building partnerships is an increase in literature on this topic. However, despite dozens of academic articles addressing this issue, there appears to be a

¹ US Department of Defense, *QDR [Quadrennial Defense Review] Execution Roadmap: Building Partnership Capacity* (Washington, DC: US Department of Defense, May 2006), 3.

² See cases in Chapters 2-4 for specifics on the U.S. commitment to the various multinational partnerships examined in the case studies.

lack of foundational analysis that links various international regime theories to specific military case studies in practice to evaluate their claims. For example, Jennifer Moroney et al. at the RAND Corporation worked to develop a framework for assessing BPC programs in 2009-10. They talked about theory in the context of the program's design and as to how it links to solving target problems and US objectives in practice. However, the theoretical discussion only involves connecting ways to ends. Nowhere does the framework link the design to theories of cooperation and theories of international regimes. The RAND report, like other literature on the topic of BPC, focuses on operational metrics, measurable outputs, and cost-effectiveness.³

While these operational metrics are important, the current literature fails to acknowledge certain factors that enable cooperation for military purposes. As a result, the DoD lacks a framework at the strategic level to accurately assess potential partnerships and their likelihood of success. In jumping straight to operational metrics to judge partnerships, we assume that cooperation will occur and partnerships will form wherever necessary. As this analysis proves, no one can guarantee cooperation, especially in military partnerships. Without a framework to assess the likelihood of success of a potential partnership, the DoD risks engaging in multinational endeavors more likely to fail than succeed. Thus, this paper seeks to answer the question, what factors ensure a successful multinational partnership to satisfy collective military/security objectives?

This paper answers the research question by examining three case studies – the SAC program, the NRF, and the WGS program – through the lens of international regime theory. Various international relations theorists have proposed different explanations for why international

³ Jennifer D. P. Moroney, Jefferson P. Marques, Cathryn Quantic Thurston, and Gregory F. Treverton, *A Framework to Assess Programs for Building Partnerships* (Santa Monica, CA: RAND, 2009).

regimes form and persist. Theories are interest-based, power-based, or knowledge-based.⁴ This paper examines those theories in depth, applying them to the three case studies to test their validity in practice.

When testing these theories on the three existing military/security partnerships, some insights emerge from certain consistent patterns. As Robert Keohane noted, states create regimes against the backdrop of what he describes as a “constellation of power and interests.” The specific aspects of power and interests reflect in the content of their principles, norms, and rules. An examination of the principles, norms, and rules of the three different partnerships reveals a need for a dominant power to compel the other actors to conform to rules and norms during the formation of the regime. Looking strictly at regime formation, the partnership resembles an “imposed regime.”⁵

However, if we define success as a combination of effectiveness and resilience, the factors necessary for regime formation differ from the factors required for effectiveness over time. As Keohane pointed out in *After Hegemony*, regimes persist despite declining satisfaction, precisely because they are so difficult to create.⁶ The mere existence of a regime does not equal success.

The case studies in the following chapters indicate that the formation of a regime depends largely on the dominant power’s ability to impose rules and norms on the other actors. However, successful and rapid transition from negotiated agreement to mission execution depends largely on issue-area specificity. Over time, during the sustainment of the regime, the usage and custom variable emerges in importance.

⁴ Andreas Hasenclever, Peter Mayer, and Volker Rittberger, *Theories of International Regimes* (Cambridge, UK: Cambridge University Press, 1997) 3-5.

⁵ This concept is explained in detail in the “Methodology” section of Chapter 1. For additional information about imposed regimes, see Oran R. Young, “Regime Dynamics: The Rise and Fall of International Regimes,” in *International Regimes*, ed. Stephen Krasner (Ithaca, NY: Cornell University Press, 1983), 100.

⁶ Robert O. Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton, NJ: Princeton University Press, 1984), 103.

Patterns of behavior based on actual practice reinforce the decision-making processes and actions of the regime.

Thus, factors for regime success vary according to three distinct phases of the regime's life cycle – regime formation, transition to operations, and sustainment. Strategists should consider the relevant factors in each of the three phases with a life-cycle perspective before engaging in partnership initiatives. Partnerships may appear to present a favorable opportunity to cooperate with allies and partners based on shared interests. However, ignoring the relevant factors in any of the three phases may result in a failed initiative.

The analysis in the following chapters examines the three different partnerships – the SAC program, the NRF, and the WGS program – to illustrate consistencies in the three phases of the regime's life cycle, as well as those relevant factors in each of the three phases. Chapter 1 includes a brief literature review on international regime theory and identification of the methodology used for case study analysis and theory testing. Case studies begin in Chapter 2, starting with the SAC program, followed by the NRF in Chapter 3, and concluding with the WGS in Chapter 4. Chapter 5 includes a summary and evaluation of the case study findings, including recommendations for future cooperative endeavors in the military realm.

Chapter 1

Theory and Methodology for Evaluating International Regimes

If regimes matter, then cognitive understanding can matter as well.

Stephen Krasner

International regime theories help explain the basis of cooperation and collaboration in the international system; however, international theorists differ on the cause or set of causes for international regime formation and persistence. Therefore, case-study analyses can help refine some theories and rule out others, especially in a specific area such as military-related regimes. In order to perform this analysis, it is necessary to define some terms and clearly construct a methodology for evaluating each regime in practice. This chapter begins by providing a consensus definition of international regimes. Next, it describes three approaches for explaining the significance of international regimes. These competing approaches highlight the need to perform in-depth case studies of regimes and their causal variables. The chapter concludes with a discussion on case study selection and an explanation of the methodology used for case study analysis in subsequent chapters.

Definition – International Regime

International relations theorists have long sought to address the basis for international collaborative structures and processes.¹ For realists, explaining the existence and success of international regimes helps fill a gap in realism that cannot fully account for the cooperation and collaboration occurring in an otherwise anarchic structure.

¹ James E. Dougherty and Robert L. Pfaltzgraff, Jr, *Contending Theories of International Relations: A Comprehensive Survey* (New York: Longman, 2001), 531.

However, as a whole, international relations theorists fail to converge on a single theory of international regimes, or even a single consensus definition of an international regime.

John Ruggie first introduced the concept of international regimes in 1975, providing a definition of a regime that others would later expand upon. He defined international regimes as “a set of mutual expectations, rules and regulations, plans, organizational entities, and financial commitments that have been accepted by a group of states.”² Stephen Krasner later modified this definition slightly, defining regimes as “sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actors’ expectations converge in a given area of international relations.”³ Krasner’s definition of international regimes became the consensus definition at a conference convened in 1982 for scholars of various theoretical orientations to prepare a special issue of the international relations journal, *International Organization*.⁴ The issue, later published as a book, still serves today as a pioneering work in the study of regimes.⁵

Despite the consensus, international relations theorists remained critical of Krasner’s definition and some such as Oran Young and Robert Keohane offered new, improved definitions to add precision in Young’s case or to simplify in Keohane’s case.⁶ Critics also highlighted the

² Dougherty and Pfaltzgraff, *Contending Theories of International Relations*, 527.

³ Stephen Krasner, “Structural Causes and Regime Consequences: Regimes as Intervening Variables,” in *International Regimes*, ed. Stephen Krasner (Ithaca, NY: Cornell University Press, 1983), 2.

⁴ Andreas Hasenclever, Peter Mayer, and Volker Rittberger, *Theories of International Regimes* (Cambridge, UK: Cambridge University Press, 1997) 8.

⁵ Hasenclever, Mayer, and Rittberger, *Theories of International Regimes*, 9.

⁶ Young prefers the term social institutions, defined as “practices consisting of recognized roles linked together by clusters of rules or conventions governing relations among the occupants of these roles.” Keohane defined the concept of regime as “institutions with explicit rules, agreed upon by governments, that pertain to particular sets of issues in international relations.” See Hasenclever, Mayer, and Rittberger, *Theories of International Regimes*, 12-14 for discussion on the “complex” and “lean” definitions of international regimes.

difficulty in conceptualizing international regimes in behavioral, cognitive, or formal terms using Krasner's definition.⁷ Yet, Krasner's definition endures as an effective foundation for analysis of regimes. As Hasenclever, Mayer, and Rittberger pointed out, Krasner's consensus definition, by its very complexity, encourages the analyst to reflect on the relationship of various "injunctions" in a particular issue-area. Krasner's definition also forces a structure on the description of regimes, thus making comparison across issue-areas easier and providing the conditions necessary for inductive theory building.⁸ For these reasons, the case studies in subsequent chapters build on Krasner's definition of international regimes.

Regime Significance – Three Approaches

Another area of debate among international relations scholars concerns the significance of international regimes. While regimes undeniably form and persist in the international system, their level of influence on behavior is subject to interpretation. Three approaches cover the spectrum of the perceived influence of international regimes, from a belief that regimes have no significance at all on one hand to a belief that regimes are a fundamental part of all human interaction on the other hand.

The first approach challenges the usefulness and validity of the regime concept, asserting that "international regime" is a misleading concept that obscures basic economic and power relationships.⁹ In essence, this approach views the influence of international regimes as overblown and inconsequential. Susan Strange represents those who subscribe to this approach in her essay, "*Cave! Hic Dragones: A Critique*

⁷ Hasenclever, Mayer, and Rittberger, *Theories of International Regimes*, 14.

⁸ Hasenclever, Mayer, and Rittberger, *Theories of International Regimes*, 12.

⁹ Krasner, "Structural Causes and Regime Consequences," 1.

of Regime Analysis.”¹⁰ In her critique, she rejects any significant role of principles, norms, rules, and decision-making procedures in international discourse. She cautions scholars against describing “interdependence” when what lies beneath the surface is actually highly asymmetrical and uneven dependence or vulnerability.¹¹ The analyst’s true focus should center on determining the basic structures of the international political economy – the structures of security, money, welfare, production, trade, and knowledge. According to Strange, since the international order is dynamic rather than static, these basic structures help pinpoint “who gets what” more accurately than regimes.¹² In summary, as realists such as Strange and Kenneth Waltz contend, regimes are one small step removed from the underlying power structures that sustain them.¹³

The second approach, characterized by Keohane and Stein, offers the conventional structural realist perspective known as the modified structural approach. This approach maintains that, in a world of sovereign states, international regimes “coordinate” state behavior to achieve desired outcomes in particular issue-areas.¹⁴ Due to complex interdependence, neither hierarchy nor anarchy prevails. As Ernst Haas noted, actors consider carefully the opportunity costs of disrupting a relationship before practicing self-help.¹⁵ In this situation, two types of regimes emerge around substantive issue-areas, regimes of common

¹⁰ Susan Strange, “*Cave! Hic Dragones: A Critique of Regime Analysis*,” in *International Regimes*, ed. Stephen Krasner (Ithaca, NY: Cornell University Press, 1983), 33.

¹¹ Strange, “*Cave! Hic Dragones: A Critique of Regime Analysis*,” 343.

¹² Strange, “*Cave! Hic Dragones: A Critique of Regime Analysis*,” 354.

¹³ Kenneth Waltz, *Theory of International Relations* (Reading, MA: Addison-Wesley, 1979), 118.

¹⁴ Krasner, “Structural Causes and Regime Consequences,” 7.

¹⁵ Ernst B. Haas, “Words Can Hurt You: Or, Who Said What to Whom About Regimes,” in *International Regimes*, ed. Stephen Krasner (Ithaca, NY: Cornell University Press, 1983), 27.

interest and regimes of common aversion.¹⁶ According to this approach, regimes are not without limitations due to the self-interested nature of the actors. As Robert Jervis points out, in areas where states act to maximize their utilities relative to the other actors, regimes lack relevance. While regimes of mutual cooperation are favorable, each actor is constantly tempted to cheat, to make competitive gains, and to take steps to prevent others from doing the same.¹⁷ Consequently, regimes can influence state behavior in significant ways, but only under certain conditions.

The third approach views regimes as a pervasive phenomenon in all human behavior, otherwise known as the Grotian tradition. This view rejects the assumption that states are the actors in international relations.¹⁸ Rather, international relations theorists such as Hopkins, Puchala, and Young suggest that elites are the practical actors. Hopkins and Puchala maintain that the elite statesmen “perceive themselves as constrained by principles, norms, and rules that prescribe and proscribe varieties of behavior.”¹⁹ From a realist perspective, regimes require an explanation, which policymakers cannot assume; from a Grotian perspective, regimes always exist as data to be described.²⁰ As Krasner pointed out, this approach places regimes in a broader social environment that nurtures and sustains the conditions necessary for the

¹⁶ Arthur A. Stein, “Coordination and Collaboration: Regimes in an Anarchic World,” in *International Regimes*, ed. Stephen Krasner (Ithaca, NY: Cornell University Press, 1983), 120.

¹⁷ Robert Jervis, “Security Regimes,” in *International Regimes*, ed. Stephen Krasner (Ithaca, NY: Cornell University Press, 1983), 187. Jervis calls these competing motives the “central problem” for cooperation among most regimes.

¹⁸ The Grotian tradition asserts that elites, as the practical actors in international relations, have transnational as well as national ties. Elites act within a communications net, embodying rules, norms, and principles, which transcends national boundaries. For more information see Krasner, “Structural Causes and Regime Consequences,” 8.

¹⁹ Donald J. Puchala and Raymond F. Hopkins, “International Regimes: Lessons From Inductive Analysis,” in *International Regimes*, ed. Stephen Krasner (Ithaca, NY: Cornell University Press, 1983), 86.

²⁰ Krasner, “Structural Causes and Regime Consequences,” 10.

regime to function.²¹ As such, examining recognized norms and common expectations allows for an understanding of the patterned behavior of the elite actors.

Differences in these approaches matter because the factors that drive the establishment and success of regimes differ for each approach. These three approaches each assume a different source of motivation for cooperation and collaboration. Power, self-interest, norms, and mutual benefits all have different significance depending on the approach. Consequently, each approach implies different causal variables in the formation and success of international regimes. Causal variables in regime success can indicate which approach is more appropriate for the explanation of regimes. An analysis of regimes will therefore highlight the existence or absence of certain variables that more accurately explain in a broader sense why some regimes succeed and others fail.

Methodology

Analysis in the following chapters evaluates the various theories of regimes using empirical evidence. The evidence will take the form of three case studies of international regimes in practice. The cases are similar in regards to the broader issue-area as each case relates to military capabilities. However, the cases exhibit varying levels of success. A discussion of case study selection follows this section.

For evaluation of the three case studies, regime success is the dependent variable. In his proposal of various causal variables to explain the creation, persistence, and dissipation of regimes, Krasner suggests treating the regime as the dependent variable.²² Using this method, the regime either exists or fails to exist. Hasenclever, Mayer and Rittberger suggest a more complex method for judging institutions. They offer two factors for judging a regime; one factor is *effectiveness* and the other is *resilience*.

²¹ Krasner, "Structural Causes and Regime Consequences," 9.

²² Krasner, "Structural Causes and Regime Consequences," 11.

Effectiveness captures the extent to which the regime achieves its objectives or fulfills certain purposes, while resilience addresses the regime's ability to persist despite changes with shifts in power or other exogenous challenges.²³ Taking into account both effectiveness and robustness allows for greater depth in the analysis of the regime as the dependent variable. Regimes may persist but lack effectiveness. As Keohane noted, regimes tend to evolve rather than die.²⁴ However, close examination may uncover an overall lack of value as perceived by the actors. Therefore, this analysis treats the success of the regime as the dependent variable measured by both effectiveness and resilience.

The search for causal variables reveals several possibilities. Krasner identifies five prominent causal or independent variables – egoistic self-interest, political power, norms and principles, usage and custom, and knowledge.²⁵ Additionally, Vinod Aggarwal proposed the idea of “nested institutions” to explain how broader higher-level regimes influence the formation and success of lower-level “subsystem” regimes.²⁶ Lastly, Hasenclever, Mayer and Rittberger discuss the need to consider issue-area specificity as a potentially essential attribute of regimes.²⁷ This study examines these seven variables in detail below.

Egoistic self-interest is one of the two most prominent causal variables.²⁸ Interest-oriented theorists like Arthur Stein propose that autonomously calculated self-interest lies at the heart of both the anarchic international system and the formation of regimes created to

²³ Hasenclever, Mayer, and Rittberger. *Theories of International Regimes*, 2.

²⁴ Robert O. Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton, NJ: Princeton University Press, 1984), 107.

²⁵ Krasner, “Structural Causes and Regime Consequences,” 11.

²⁶ Vinod K. Aggarwal, “Reconciling Institutions: Nested, Horizontal, Overlapping, and Independent Institutions,” (Princeton University, 2005), 2, <https://www.princeton.edu/~smeunier/Aggarwal%20memo.pdf> (accessed 30 December 2014).

²⁷ Hasenclever, Mayer, and Rittberger. *Theories of International Regimes*, 60.

²⁸ Krasner, “Structural Causes and Regime Consequences,” 20.

serve sovereign entities dedicated to their own self-preservation.²⁹ In this environment, self-interested calculation may lead to joint decision-making, and cooperation occurs only because independent behavior can result in undesirable or suboptimal outcomes.³⁰ Therefore, the egoist is concerned with engaging in international regimes only when the regime can positively affect the egoist's utility.

The second most prominent causal variable is the use of political power to create and sustain regimes. An entity can use political power in one of two ways, either to serve national interests or to serve the "common good." Political power used for self-serving motives may include theories concerning hegemonic stability, where the hegemon uses its asymmetric power advantage to provide the collective goods necessary for the regime to function. Included in this concept is Young's notion of "imposed regimes" in which the dominant power may use a combination of sanctions and incentives to compel the other actors to behave in conformity with a set of implicit or explicit rules, norms, and procedures. Classical feudal arrangements and imperial systems represent examples of imposed regimes in the most extreme form.³¹

On the other hand, states may also use political power to secure optimal outcomes for the systems as a whole. In this case, the dominant power accepts the responsibility for providing certain collective goods (minimum levels of welfare, public works, security, economic standards, etc.). Motivation to accept this responsibility is for the common good alone.³² Examples may include environmental or human rights regimes that seek to protect people and resources.

²⁹ Arthur A. Stein, "Coordination and Collaboration: Regimes in an Anarchic World," in *International Regimes*, ed. Stephen Krasner (Ithaca, NY: Cornell University Press, 1983), 116.

³⁰ Stein, "Coordination and Collaboration: Regimes in an Anarchic World," 120.

³¹ Oran R. Young, "Regime Dynamics: The Rise and Fall of International Regimes," in *International Regimes*, ed. Stephen Krasner (Ithaca, NY: Cornell University Press, 1983), 100.

³² Krasner, "Structural Causes and Regime Consequences," 14.

The third variable, norms and principles, refers to the general and diffuse set of common values that provide a foundation for the level of cooperation necessary for regimes to form and persist.³³ As Puchala and Hopkins noted, these general norms and principles form a “normative superstructure” under which a substructure can operate in a specific issue-area. One example they provide of a normative superstructure is the belief in the balance of power among major actors in the nineteenth century, which then regulated such substructures as regimes governing colonialism.³⁴ Another example is Hedley Bull’s assertion that state sovereignty is both normative and factual.³⁵ One would consider the commitment of states to the concept of sovereignty as the superstructure that provides the basis for lesser substructures.

The fourth variable, usage and custom, refers to regular patterns of behavior based on actual practice. Once the regime is established, patterned behavior leads to shared expectations. As Krasner pointed out, a great deal of western commercial law originated from practices that began as *ad hoc* arrangements.³⁶ In Young’s scenario of imposed order by the dominant power, obedient behavior on the part of the other actors bolsters the regime over time and creates the perception of legitimacy.³⁷ While usage and custom play no significant role in the formation of a regime, they may play a role as a reinforcing mechanism on the effectiveness and resilience of a regime once established.

Krasner’s fifth variable, knowledge, Ernst Haas defined as “the professionally mediated body of theory and information that transcends

³³ Krasner, “Structural Causes and Regime Consequences,” 17.

³⁴ Puchala and Hopkins, “International Regimes: Lessons from Inductive Analysis,” 64.

³⁵ Hedley Bull, *The Anarchical Society* (New York: Columbia University Press, 1977), 8.

³⁶ Krasner, “Structural Causes and Regime Consequences,” 18.

³⁷ Krasner, “Structural Causes and Regime Consequences,” 19.

prevailing lines of ideological cleavage.”³⁸ Haas believes sharing a “fund” of knowledge allows governments otherwise in opposition to each other to benefit from “cognitive convergence.” However, the knowledge must be widely accepted by policy makers. The effect of such sharing of knowledge is the illumination of a path to cooperation in a certain area in the midst of ideological cleavages. Haas provides examples of cognitive convergence on areas such as arms control and environmental pollutants.³⁹ A shared knowledge in these areas theoretically provides the basis for regimes.

Vinod Aggarwal offered a sixth variable, the concept of nested institutions. Like general norms and principles, Aggarwal characterized “lower-level” regimes as subsystems influenced by higher-level systems. However, in Aggarwal’s analysis, the higher-level systems consist of formal institutions themselves that provide structure and constraints to the more narrowly focused lower-level regime. In his PhD dissertation and subsequent publications, he analyzed relationships of the textile regime to the broader General Agreement on Tariffs and Trade (GATT). He argued that the lower level textile regimes are influenced by the actors’ objectives found in the higher-level GATT.⁴⁰ Applied to security, a lower-level regime may focus on a specific capability, while the broad, higher-level security regime such as NATO would provide the structure, objectives and constraints.

The seventh and final variable is issue-area specificity. Haas defines an “issue” simply as a separate item that appears on the agenda of negotiators. He subsequently defines an “issue-area” as “a recognized cluster of concerns involving interdependence not only among the parties

³⁸ Ernst B. Haas, “Why Collaborate? Issue-Linkage and International Regimes,” *World Politics* 32, 3 (April 1980), 368.

³⁹ Haas, “Why Collaborate? Issue-Linkage and International Regimes,” 368.

⁴⁰ Vinod K. Aggarwal, *Hanging by a Thread: International Regime Change in the Textile/Apparel System, 1950-1979*, Ph.D. dissertation (Stanford University, 1981).

but among the issues themselves.”⁴¹ Theoretically, with specificity in an issue-area comes greater opportunity for cooperation and collaboration.

However, issue-area as a variable presents certain challenges. First, as Hasenclever, Mayer, and Rittberger noted, despite its importance, the concept of issue-areas lacks clarity among international relations scholars. They note the difficulty in identifying the characteristics of issue-areas. Additionally, the boundaries of an issue-area are perception-dependent.⁴² As such, politics prevail in the formation of an issue-area, and the issue-area can change. Nonetheless, issue-area specificity deserves attention as a potential contributing variable to the formation and success of regimes.

Analysis of these variables does not lend itself to clean, quantitative assessments. In fact, regimes themselves present difficulties for empirical research. To illustrate this point, Krasner rejects the conventional realist’s billiard ball analogy in favor of an image of tectonic plates. In this metaphor, regimes and states act as the plates in contact with one another, putting pressure on each other over time and moving at different rates of speed.⁴³ Incongruity and complexity exist in this analogy in a way that the billiard ball analogy fails to capture. Therefore, tracing the existence and strength of the variables requires an in-depth case study analysis to test the various theories of international regimes.

Lastly, in order to evaluate the dependent variable according to the more nuanced definition of success as both effectiveness and resilience, this methodology requires evaluation of the variables over time. Hughes, Lantis, and Solis argued for the need to consider international regimes with a life-cycle perspective, since the payoff structure changes over time as regimes mature. They suggest a three-phase approach to examining a

⁴¹ Haas, “Why Collaborate? Issue-Linkage and International Regimes,” 365.

⁴² Hasenclever, Mayer, and Rittberger. *Theories of International Regimes*, 61.

⁴³ Stephen Krasner, “Regimes and the Limits of Realism: Regimes as Autonomous Variables,” in *International Regimes*, ed. Stephen Krasner (Ithaca, NY: Cornell University Press, 1983), 357.

regime's life cycle.⁴⁴ For the purpose of this analysis, the study adopts and modifies this three-phase approach.

The three phases are regime formation, transition to operations, and sustainment. In the formation phase, the relevant factors motivate the actors to create the regime and negotiate the initial terms of the agreement. In the transition to operations phase, the regime moves from the agreement to initiate the regime to execution of the terms. In the military regime, the speed at which the regime began executing its intended mission relative to other regimes would indicate its success in this phase.

The case studies in the subsequent chapters analyze existing multinational partnerships in the arena of security. With success of the regime as the dependent variable, one can assess the existence and strength of the variables to determine those factors that are necessary and sufficient for regime success in each of the three phases. The analysis concludes by offering a set of factors that must be present to ensure success in the formation of international regimes to serve national security needs, along with a discussion on the validity of the various approaches to international regimes in the area of security.

Case Study Selection

Robert Jervis asked, "Can the concept of regimes be fruitfully applied to issues of national security?"⁴⁵ Jervis believes so, but argues that "security regimes" differ from other types of regimes due to the

⁴⁴ Hughes, Lantis, and Solis define the three phases as 1) states perceive sufficient benefits obtainable through cooperation to overcome the costs associated with the establishment of an international organization; 2) participants sought to expand cooperation by acquiring more members (universality), adopting a common set of rules (homogeneity), and increasing issue scope (regime deepening); and 3) states shifted to pursue cooperation through alternative, and more exclusive, forms of international cooperation. See Llewelyn Hughes, Jeffrey S. Lantis, and Mireya Solis, "The Life Cycle of Regimes: Temporality and Exclusive Forms of International Cooperation," *Journal of International Organizations Studies* 5, no. 2 (Fall 2014), 87-88.

⁴⁵ Jervis, "Security Regimes," 173.

primacy of security, its competitive nature, the unforgiving nature of the arena, and the uncertainty of how much security the state needs and has.⁴⁶ Consequently, security regimes exhibit characteristics unique from other types of regimes and should share common factors that contribute to their success or failure.

Jervis defines a security regime as “those principles, rules, and norms that permit nations to be restrained in their behavior in the belief that others will reciprocate.” This applies to forms of cooperation that last beyond the achievement of short-term objectives.⁴⁷ Based on the definitions of both international regimes and the subset of security regimes, multinational military partnerships often fit these definitions and serve as useful subjects for analysis.

This analysis relies on three cases that fit these definitions while experiencing varying degrees of success based on the criteria of effectiveness and resilience. The three cases include three formal, multinational military partnerships – the Strategic Airlift Capability, the Wideband Global SATCOM, and the NATO Response Force. These capabilities-based partnerships are relatively small in terms of financial and resource commitments as a percentage of the overall DoD budget. Nonetheless, they each consist of an apparatus of principles, norms, rules and procedures around which governments converge. Additionally, the three programs center on issue areas and continue to function over time rather than single-event arrangements made for specific operations or contingencies. Therefore, the three partnerships serve as worthy cases of international regimes for the purpose of this analysis. Based on the methodology previously discussed, in-depth analysis of each case follows in subsequent chapters.

⁴⁶ Jervis, “Security Regimes,” 175.

⁴⁷ Jervis, “Security Regimes,” 173.

Chapter 2

Case 1 – The Strategic Airlift Capability

The Strategic Airlift Capability program, a multinational airlift consortium with 12 participating nations based in Papa, Hungary, serves as an example of a successful international military regime. Since the SAC program contains sets of explicit principles, norms, rules, and decision-making procedures around which actors' expectations converge in the issue-area of military airlift, one can effectively consider it an international regime. Additionally, due to its success in terms of both effectiveness and resiliency, it provides a starting point to analyze the factors contributing to its success. The following chapter examines the SAC program by life-cycle phase, identifying those independent variables contributing most directly to its success in terms of effectiveness and resilience.

Background

The Allies conceived of the SAC program in 2006, when several NATO nations identified a need for strategic airlift to serve military purposes. Although the individual nations expressed an interest in purchasing their own organic capability, the cost of procuring and maintaining an aircraft like the C-17 was a significant political and economic challenge.¹

Additionally, several on-going issues helped to elevate the consortium as an attractive option. Another on-going initiative at the time, the Strategic Airlift Interim Solution (SALIS), proved the feasibility of a multinational airlift consortium while failing to meet the overall

¹ The second largest customer in the SAC program, Sweden, was already engaged in negotiations to buy C-17s from Boeing to meet its UN peacekeeping commitments. However, the financial commitment to Sweden and other participating nations was too high to gain support. See John A. Tirpak, "C-17s in Hungary," *Air Force Magazine*, October 2011, 38.

airlift demand. SALIS consists of an 18-nation consortium sharing the services of a civilian company for the charter of Antonov An-124-100 transport aircraft.² Meanwhile, the “European solution,” the Airbus A400M, suffered from extensive, highly publicized delays and cost overruns, further highlighting the practicality of a proven transport aircraft like the C-17.³ Lastly, at the time of discussions for the SAC program, Boeing announced the end of the C-17 production line without further orders from the US Air Force (USAF) or foreign customers.⁴

Consequently, on 12 September 2006, 13 NATO countries signed a Letter of Intent (LOI) to launch contract negotiations, and the program quickly stepped through various milestones on the way to flying operational airlift missions. Following the LOI, the North Atlantic Council approved a charter for the NATO Airlift Management Organization (NAMO) on 20 June 2007. On 14 February 2008, fifteen prospective participants finalized the text of the proposed Memorandum of Understanding (MOU), and on 18 September 2008, the final twelve nations signed the MOU to purchase and operate three Boeing C-17 aircraft.⁵

The final twelve nations consist of 10 NATO nations: Bulgaria, Estonia, Hungary, Lithuania, the Netherlands, Norway, Poland, Romania, Slovenia, and the United States. Two non-NATO Partnership for Peace

² NATO official website, “Topic: Strategic Airlift Capability (SAC),” (Updated 8 April 2014), http://www.nato.int/cps/en/natolive/topics_50105.htm (accessed 26 January 2015).

³ Although there are no official estimates, as of 2010, cost overruns on the Airbus A400M were estimated at 25% and schedule delays were at 3-4 years with no certain delivery schedule. See Bjoern Siebert, “Too Big to Fail: The A400M Bail Out,” *RUSI Defence Systems*, (February 2010), 78-81.

⁴ Tirpak, “C-17s in Hungary,” 39.

⁵ See Letter of Confirmation in Annex B of Memorandum of Understanding Concerning Strategic Airlift Capability (SAC), opened for signature 11 March 2008 (US Department of State: Treaty Affairs document no. 129827), <http://www.state.gov/documents/organization/129827.pdf> (accessed 28 December 2014) [hereinafter as SAC MOU].

(PfP) countries joined the group, Sweden and Finland. Three of the original thirteen NATO nations on the LOI dropped out of the program, Italy, Latvia, and the Czech Republic.⁶

The MOU serves as the primary contractual source document for the program, detailing authorities, financial procedures, cost shares, organization, operations, sustainment, and other structural guidance. It outlines how crews were to fly and maintain the aircraft, allocated flight hours to the various participating nations according to their respective cost share, and spelled out the organization and authorities of various entities. Structurally, the MOU established the SAC Steering Board as an overall governing body, the Heavy Airlift Wing (HAW) as the operational unit for the execution of missions, and the NATO Airlift Management Agency (NAMA) as the SAC support organization (logistics, infrastructure, and financial management). The MOU describes each nation's financial and manpower commitment to the program in proportion to the respective number of flying hours they purchased as a percentage of the total.⁷

For example, the largest customer, the United States, paid for one third of the flight hours. As a result, the United States' responsibilities under the MOU included one-third of the acquisition cost and one-third of the operations and infrastructure costs. Additionally, the United States is obligated to contribute one-third of the manpower for the Heavy Airlift Wing, the organization's operational unit. Manpower includes specialties such as C-17 pilots, loadmasters, crew chiefs, mission planners, security forces, life support personnel, supply technicians, and aerial port personnel.⁸

The agreement allocates flight hours according to the chart below:

⁶ See Letter of Confirmation in Annex B of SAC MOU.

⁷ See Section 8 of SAC MOU for financial cost sharing.

⁸ SAC MOU, Section 8.

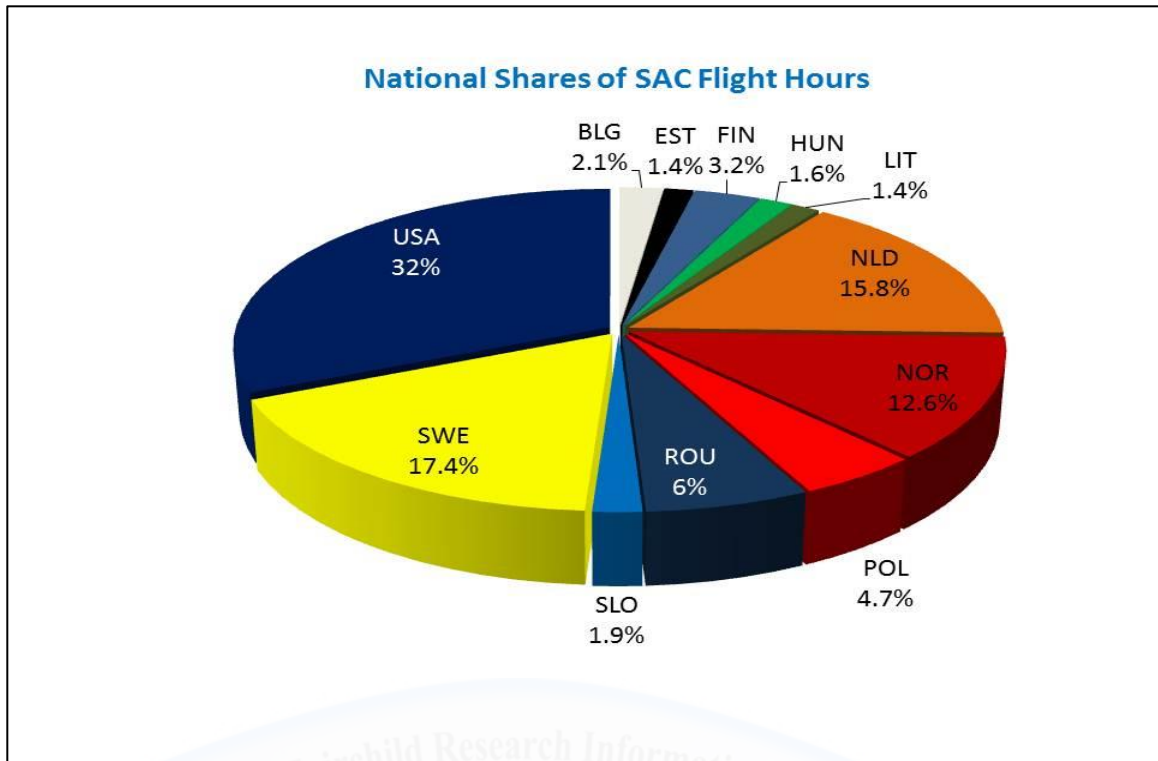


Figure 1: National Shares of SAC Flight Hours

Source: Heavy Airlift Wing Public Affairs, "The Strategic Airlift Capability (SAC)," <https://www.heavyairliftwing.org/en/Pages/The%20Strategic%20Airlift%20Capability.aspx> (accessed 25 January 2015).

The MOU set the yearly total flight hours at 3,165 split among the three C-17 aircraft. According to the MOU, each nation can use its flight hours for its own purposes, provided the missions are not for commercial purposes or controlled by commercial entities. The MOU also authorizes nations to make bilateral agreements to transfer flying hours. Additionally, in the event that flying hours are unavailable to transfer among participants, the SAC Steering Board may authorize the utilization of additional flight hours to meet a "compelling need."⁹

In some ways, the three aircraft and their operation mirror the USAF. The MOU mandated that the aircraft be interoperable with "USAF systems," and that the consortium would maintain interoperability

⁹ SAC MOU, 34.

throughout the program.¹⁰ More specifically, the SAC Concept of Operations (CONOPS) outlined the standards for certification and registration of the aircraft by the Republic of Hungary. According to the CONOPS, the operating standards would be “in accordance with the USAF basic certification.” The CONOPS defined the SAC configuration as the USAF basic configuration.¹¹ In order to meet this requirement, NAMA integrated itself with the USAF’s C-17 aircraft configuration management process.¹²

In other ways, the SAC program resembles a foreign military. Even with the USAF as the largest customer in the consortium, the nations acquired the aircraft, support equipment, training, and engineering support under a foreign military sales (FMS) case with the US Government. Based in Hungary, the three aircraft are certified and registered under the Hungarian National Transportation Authority as Hungarian-flagged aircraft.¹³ As an FMS customer, the SAC program benefits from interoperability but lacks the integration with the USAF in areas such as intelligence, logistics, and sustainment. Additionally, with a small fleet size, the program relies on contractor logistics support (CLS) for aircraft maintenance and engineering support at home station. A network of other foreign C-17 operators such as the UK, Canada, and Australia allows the program to participate in a “virtual fleet” accord to enable access to a worldwide Boeing parts pool. Overall, given the program’s unique qualities, it represents a new experiment in multinational airlift.

Various milestones demonstrate the rapid pace at which the program advanced. Less than 10 months after the 12 nations signed the

¹⁰ SAC MOU, 40.

¹¹ Strategic Airlift Capability Steering Board, *SAC Concept of Operations*, 2 May 2008, 16 [hereinafter as SAC CONOPS].

¹² Col (ret) John D. Zazworsky, former HAW commander, interviewed by the author, 21 January 2015.

¹³ SAC CONOPS, 16.

MOU, the HAW received its first C-17 delivered from the Boeing production facility in California to its base in Papa, Hungary, on 14 July 2009. The wing flew its first operational mission less than a month later, and by the end of September 2009, it was flying missions in Afghanistan in support of the International Security Assistance Force (ISAF). The HAW received its third and final aircraft in October 2009, and by February 2010, it reached a total of 1,000 flight hours in support of the participating nations.¹⁴ The study shows the program data by year in the table below.

Table 1: SAC Program Totals by Year

Year	Missions	Sorties	Flight Hours	Passengers	Cargo (tons / lbs)
2009	50	180	650.9	863	948 / 2,090,213
2010	144	665	2,665.0	5,295	5,327 / 11,744,452
2011	200	725	2,938.4	12,830	10,536 / 23,228,822
2012	231	733	2,928.0	16,484	9,285 / 20,471,845
2013	253	861	3,165.0	13,114	11,429 / 25,195,569
2014	251	842	2,892.0	10,334	9,462 / 20,860,577
TOTAL	1,129	4,006	15,239.0	58,920	46,988 / 103,591,478

Source: Heavy Airlift Wing Public Affairs, "Heavy Airlift Wing," <https://www.heavyairliftwing.org/en/Pages/Heavy-Airlift-Wing.aspx> (accessed 25 January 2015).

Although the flight hours declined from 2013 to 2014, the HAW had two out of three aircraft in heavy depot-level maintenance for several months.¹⁵

¹⁴ Milestones extracted from Heavy Airlift Wing Public Affairs, "Strategic Airlift Capability Program Milestones 2006-2014," <http://www.heavyairliftwing.org/about/SAC%20Milestones%202006-2014.pdf/view> (accessed 26 January 2015).

¹⁵ HAW Public Affairs, "Strategic Airlift Capability Heavy Airlift Wing's Year 2014."

Judging Success – Effectiveness and Resilience

The SAC program appears to be a resounding success when judging it based on the two factors proposed in Chapter 1, effectiveness and resilience. In terms of effectiveness, the program went from concept to executing missions in just two and a half years.¹⁶ The program has amassed over 15,000 flight hours without a serious mishap, providing a range of airlift missions to the participating nations.¹⁷ In addition to missions in Afghanistan, the HAW flew missions supporting the humanitarian response to the 2010 earthquake in Haiti, Operation UNIFIED PROTECTOR in 2011, and the 2011 exercise Atlas Drop in Uganda, demonstrating the program's air drop capability.¹⁸ The program appears to be effective in delivering exactly what the nations desired at the program's outset.

In terms of resilience, the program most notably began during the height of the collective international commitment to ISAF in Afghanistan. Since that time, many nations either have ended their presence or scaled it back drastically. The largest three participants in the SAC program after the United States have all reduced their commitments to minimal levels. Sweden went from 350 troops in 2007 to just 12 in 2014. Likewise, the Netherlands reduced their troop levels from 1,512 in 2007 to 29 in 2014, and Norway reduced their commitment from 508 troops to 59.¹⁹

¹⁶ Tirpak, "C-17s in Hungary," quoting SAC Steering Board Chairman, Maj Gen Mark O. Schissler.

¹⁷ HAW Public Affairs, "Milestones 2006-2014," 5.

¹⁸ HAW Public Affairs, "Milestones 2006-2014," 5-6.

¹⁹ 2007 numbers extracted from NATO official website, "ISAF Key Facts and Figures Placement," (5 December 2007) www.nato.int/isaf/docu/epub/pdf/placement_archive/isaf_placemat_071205.pdf (accessed 26 January 2015); 2014 numbers extracted from "ISAF Key Facts and Figures," NATO website (1 December 2014) www.nato.int/nato_static_fl2014/assets/pdf/pdf_2014_12/20141201_141201-ISAF-Placemat-final.pdf (accessed 26 January 2015).

With these precipitous drops in the commitment to ISAF, the SAC program feared a corresponding drop in the demand for airlift to sustain these forces.²⁰ However, as indicated by the airlift totals in Table 1, the airlift demand from the nations remains consistent. Furthermore, as explained earlier, the limiting factor in flight hours for 2014 was not the demand, but the fleet's heavy maintenance requirements. Therefore, based on effectiveness and resilience, the program is successful in providing a shared strategic airlift capability to the participants reliably and at a consistent cost over time. Next, the phase discussion will add depth to the analysis.

Phase 1 – Regime Formation

The SAC program took shape quickly due to many of the factors previously mentioned – the demand for airlift to support ISAF, the A400M delays, the threat of shutting down the C-17 production line – but one should assess the program's formation in terms of the variables described in Chapter 1. In the regime formation phase, the prominent variables are egoistic self-interest and political power.

While it is certainly difficult to assess the exact role of self-interest and political power, the MOU and other charter documents provide evidence of the extent to which these factors influenced the various actors in this stage. The MOU outlined the governance structure so that an executive body, the SAC Steering Board, holds the responsibility for guidance and oversight of the SAC program. The Steering Board consists of a permanent representative from each nation, with each representative entitled to one vote. The board makes all its decisions unanimously.²¹ This requirement for 100% consent on decisions implies that the motivation for the formation of the group was the overall “common good.”

²⁰ Col (ret) John D. Zazworsky, former HAW commander, interviewed by the author, 21 January 2015.

²¹ SAC MOU, 12-13.

On the other hand, the program vested the HAW commander (HAW/CC) with the authority to execute missions on behalf of the member nations with a level of autonomy that is normally dedicated to the numbered air force level in the USAF.²² As former HAW/CC Col (retired) John Zazworsky noted, this broad authority given to the HAW/CC in the MOU “oriented the program towards action.” In comparison to other NATO programs that require consensus prior to executing each mission, the HAW/CC received implied consent through the MOU for all missions, given they do not conflict with specific national caveats.²³ The discussion on issue-area specificity in Phase 2 explains how this broad authority and autonomy were possible.

Additionally, the majority of the participating nations had a real requirement for airlift of this nature, but lacked the resources to acquire the capability on their own. Other Eastern European nations felt it was in their national interest to do something “western” or establish a stronger link with the USAF, and this program provided that opportunity.²⁴ Therefore, the United States benefited from being in the position of the dominant actor with the most leverage to impose the regime’s rules and norms on the other actors. Evidence of an “imposed regime” exists in the requirement to maintain interoperability with the USAF, as well as the mandate for a wholesale incorporation of US

²² Col (ret) Scott Shapiro, former SAC Advisory Committee Chairman and US representative to the SAC Steering Board, interviewed by the author, 27 January 2015.

²³ Caveats restrict the activities and participation of a particular nation based on political sensitivities or national laws. Some SAC missions cannot be flown with crews from nations that do not allow their participation in a particular operation or certain country. For the HAW, these caveats are not severe enough to prevent the HAW from satisfying the airlift requirements of all participating nations. Caveats will be discussed again in the NRF case study (Chapter 3). Information obtained from Col (ret) John D. Zazworsky, former HAW commander, interviewed by the author, 21 January 2015.

²⁴ Col (ret) Scott Shapiro, former SAC Advisory Committee Chairman and US representative to the SAC Steering Board, interviewed by the author, 27 January 2015. From his position on the SAC Steering Board, Col Shapiro observed the varying motivations for participating in the program.

training, operating procedures, maintenance procedures, and configuration management.²⁵

One sees further evidence of an imposed regime in the built-in economic incentives. For example, the MOU outlines monetary penalties for a failure to contribute manpower to the HAW at the required levels. These monetary penalties are significant, especially for the smaller participating nations. Such monetary penalties motivate the nations to fill their requirements at 100%. Additionally, the high up-front cost of the acquisition increased the incentive to employ the capability quickly and realize a return on investment. Lastly, the cost-sharing model further incentivizes the nations to use their allotted flight hours. Since the program distributes cost burden to the nations proportionally as a percentage of all operating costs, the flight hours effectively become “use or lose” hours.

The United States, as the largest participant in the program and one of the principle architects in the design of the MOU and the program structure, effectively leveraged its political power to impose a combination of rules, norms, and economic incentives. The characteristics of an imposed regime suggest that egoistic self-interest and political power both contributed to the regime formation and a formal agreement. Imposing the terms of the agreement would have implications on the subsequent phases of the regime’s life cycle.

Phase 2 – Transition to Operations

While the carefully crafted MOU helped enable the rapid transition from negotiated agreement to conducting airlift operations, the program also depended on issue-area specificity in a broader sense. The “common good” that the nations coalesced around was the military airlift issue-area. As an issue area, airlift’s characteristics and capabilities are

²⁵ See the SAC MOU for interoperability requirements with the USAF and the CONOPS for mandates using US procedures for training, operations, configuration management, and maintenance.

well defined. Additionally, demand for airlift is quantifiable and results are easily measured. Former HAW/CC Col John Zazworsky noted, “every mission was connected to a real national requirement.”²⁶ Fortunately, airlift offers immediate, tangible results. Airlift also offers a clear-cut cost per flight hour calculation. Unlike other military functions, return on investment on airlift is easy to calculate.

Additionally, the non-kinetic, non-destructive nature of airlift reduces the political risk of executing missions on behalf of other nations. In this sense, issue-area specificity relates to a reduction in political uncertainty. Rather than taking political risks, the SAC program actually offers the nations the opposite – a low-cost opportunity to assist partner nations and gain political capital. For example, within a year of flying its first operational mission, the HAW flew humanitarian relief operations in Haiti, and helped repatriate remains of the victims of the Polish Tu-154 crash in Smolensk, Russia.²⁷ Since each SAC mission is comprised of a multinational crew independent of the mission, the SAC program offers participating nations an opportunity to tout the collective efforts and benefit from the positive publicity.

Mission caveats also provide an indication of the specificity and low political cost of military airlift. Due to public sensitivities, national caveats restrict specific nations from flying with multinational HAW crews on missions to certain locations. While caveats exist for participating SAC nations, the overall number of restrictions is relatively small compared to complicated rules of engagement for the use of force in a coalition operation.²⁸

²⁶ Col (ret) John D. Zazworsky, former HAW commander, interviewed by the author, 21 January 2015.

²⁷ HAW Public Affairs, “Milestones 2006-2014,” 5-6.

²⁸ Col (ret) Scott Shapiro, former SAC Advisory Committee Chairman and US representative to the SAC Steering Board, interviewed by the author, 27 January 2015.

Phase 3 – Sustainment

The issue-area specificity of airlift and the USAF's past success with the C-17 led to the acceptance of US operating procedures and business practices. When put into practice on a day-to-day basis, these patterns of behavior served to bolster the regime and create the perception of legitimacy. They also made a high level of efficiency possible despite nations contributing personnel with varied backgrounds and experience levels. This phenomenon falls under the "usage and custom" variable.

Given the authority and responsibility to impose US customs and procedures on the other nations, the USAF sent skilled instructor pilots, 7-level loadmasters and maintenance personnel, and highly experienced support personnel in areas to include supply, life support systems, intelligence, and mission planning.²⁹ In the short term, imposing US customs and procedures induced tensions within the organization, as members of some nations bristled at being forced to accept US training and operate "the US way."³⁰ However, sustaining day-to-day operations at the tempo needed to meet the flight hour requirement and satisfying the nations' mission requests depended on the HAW matching the USAF standards. In fact, the Hungarian National Transportation Authority would not continue to certify the aircraft with an airworthiness certificate if the HAW did not maintain and operate its aircraft in accordance with USAF customs and procedures.³¹

However, with just one-third of the total manpower in the HAW, the United States depended on personnel from the other nations to gain proficiency and adopt USAF regulations as their own in order to meet the high demand for airlift missions. As Hopkins, Puchala, and Young would

²⁹ HAW unit manning document billets and job descriptions found in the SAC CONOPS, Appendix 3.

³⁰ Col (ret) Shapiro, interviewed by the author, 27 January 2015.

³¹ Col (ret) Shapiro, interviewed by the author, 27 January 2015.

have predicted, a willingness to follow USAF customs and procedures led to shared expectations. As Norwegian HAW pilot Christian Langfeld notes, pilots come to the HAW with varied backgrounds and a wide range of experience levels. “Some of us have never flown a brand-new airplane; we’re all learning together,” he said.³² The HAW adjusted some aspects of USAF regulations and customs to fit the HAW’s unique mix of people and multinational structure. Ultimately, however, the wing maintained and operated the aircraft in accordance with USAF standards.³³ Establishing these practices from the start of operations allowed the HAW to train crews and support personnel using proven methods, quickly forming routines and efficiencies. In turn, the SAC program met the nations’ airlift requirements in short time, bolstering legitimacy and demonstrating a sustainable capability.

Other Considerations

Given the success of the SAC program, some of the independent variables are notably absent from each of the three phases. The first variable absent from the SAC program is Aggarwal’s concept of a nested institution. Although the majority of all SAC participants fall under NATO, the alliance holds no influence over the program and the missions it executes. The SAC program operates with no higher-level institution imposing structure and constraints on the regime.

Additionally, although the nations all desire strategic airlift, knowledge is not the basis for cooperation in the manner Krasner described. For knowledge to drive cooperation, we would expect to see a cognitive convergence around the generation and acceptance of new knowledge.³⁴ However, those individuals with knowledge of the program noted that some countries entered the partnership with little knowledge

³² Tirpak, “C-17s in Hungary,” 40.

³³ Col (ret) Shapiro, interviewed by the author, 27 January 2015.

³⁴ Krasner, “Structural Causes and Regime Consequences,” 19.

of what they wanted, and lacked a basic understanding of the capability in general.³⁵

Lastly, although the SAC program established standard practices by modeling USAF rules and regulations, their acceptance and use came out of necessity and imposed by the dominant actor in the regime formation. This is not to be confused with the “norms and principles” variable. As explained in Chapter 1, norms and principles relates to a normative superstructure that imposes standard practices on the regime. The SAC program had no higher-level institution imposing norms and principles on the regime.

Overcoming Barriers to Success

Despite its overall success, the SAC program is not free from challenges and barriers to overcome. Most notable are practical considerations not captured in the theoretical discussions on international regimes. As the Norwegian Langfeld noted, the most significant barriers are culture and language. He remarked, “The regulations are different for all the varying countries. You have to understand [that] things are different, [and] how you receive words is important.”³⁶

Other challenges include nation-specific personnel support issues, such as the challenges of sending families to live in another country, ensuring medical support, providing education for dependents, and arriving at a common understanding of duty-day requirements and vacation time. For example, the HAW regulations for crew duty days unknowingly violated some nations’ labor laws. In another example, some personnel arrived in Hungary unaccompanied because their military had no authority and provision for moving families to another country.³⁷ These administrative challenges are difficult to capture in the

³⁵ Col (ret) Zazworsky, interviewed by the author, 21 January 2015.

³⁶ Tirpak, “C-17s in Hungary,” 40.

³⁷ Col (ret) Zazworsky, interviewed by the author, 21 January 2015.

academic literature on international regimes, yet they serve as significant challenges that threaten cooperation.

Finally, the issue of legal identity remains a threat to the long-term success of the SAC program. In the *Journal of Air Law and Commerce* in 2012, the Legal Officer for the International Civil Aviation Organization, Christopher Petras, detailed how the SAC program differs from other multinational organizations operating under collective defense organizations established by treaty, such as NATO. Lacking a foundation of international law or domestic law, neither SAC nor the HAW has any legal standing as an alliance or a military organization. This legal shortfall has far-reaching implications for foreign jurisdictional claims and infringements upon state aircraft sovereignty.³⁸ Additionally, a pilot from another nation flying a Hungarian-registered C-17 aircraft could result in competing responsibilities as a simultaneous representative of his national military and the aircraft's "territorial sovereign."³⁹

To resolve this issue, Petras proposed a NATO-HAW framework by adopting the Eurocorps model that would bring the SAC program under the Eurocorps legal umbrella.⁴⁰ The Eurocorps maintains status as a NATO headquarters, but remains outside NATO's integrated military command structure. By adopting this model, the SAC program would also become a NATO headquarters while maintaining the flexibility and autonomy required to execute missions on behalf of the participating

³⁸ Christopher M. Petras, "Serving Two Masters: Military Aircraft Commander Authority and the Strategic Airlift Capability Partnership's Multinational Airlift Fleet," *Journal of Air Law and Commerce* 77, no. 1 (Winter 2012): 114.

³⁹ Petras, "Serving Two Masters," 115.

⁴⁰ The Eurocorps began as a French-German security initiative in 1963, eventually expanding to several other European countries. It remains at the EU's disposal for operations, maintaining its own legal personality outside the NATO integrated military structure. However, it also maintains status as a NATO headquarters and thereby shares NATO's legal personality. For more information see Eurocorps, *History of HQ Eurocorps* http://www.eurocorps.org/pdf/eng/History_of_the_Eurocorps.pdf (accessed 27 March 2015).

nations.⁴¹ However, adopting this model requires acceptance by the two non-NATO nations, Sweden and Finland. It also requires an assurance from NATO that it would not demand flight hours or integration with its command structure.⁴² These barriers to cooperation do not fit neatly into any of the seven independent variables; nonetheless, they each continue to threaten the success of the regime.

Conclusion

The SAC program represents a success story in terms of both effectiveness and resiliency. It has been successful from the signing of the MOU all the way through today, as it rapidly began operating and continues to satisfy the demand for airlift among the 12 participating nations. Thus, the variables present in each of the three phases of the regime's life cycle – egoistic self-interest and political power in Phase 1 (formation), issue-area specificity in Phase 2 (transition to operations), and usage and custom in Phase 3 (sustainment) – provide a framework to evaluate subsequent cases.

This case study offers several conclusions to compare/contrast in other international military regimes. First, due to the lack of consensus on operational procedures, the regime requires a dominant actor in the formation stage to impose norms and rules on the other actors. Second, in the transition to operations stage, the regime benefits from issue-area specificity. More specifically, in a military regime this refers to the political consensus on how the participants will employ the capability. As a non-kinetic capability, military airlift offers a quantifiable, low-risk, high-return political option. Third, in order to sustain the regime over time, members must adopt common customs and procedures. These patterns of behavior lead to shared expectations, higher efficiency, and an increased perception of legitimacy as the regime accomplishes the task its members formed it to do. Finally, certain variables have no

⁴¹ Petras, "Serving Two Masters," 146-147.

⁴² Col (ret) Shapiro, interviewed by the author, 27 January 2015.

bearing on the regime's success. These variables are norms and principles (normative superstructure), nested institutions, and knowledge. The following two case studies test these conclusions.



Chapter 3

Case 2 – The NATO Response Force

Collective action essentially rests on diffuse reciprocity and hence cannot function if the identity constellations among members of a collective do not converge to a certain extent.

Barbé and Johansson-Nogués

To respond to modern threats, the NATO Alliance created the NATO Response Force (NRF) in 2004 as a multidimensional force capable of deploying rapidly on short notice in response to any crisis. Former NATO Secretary General Anders Fogh Rasmussen captured the boldness of this initiative in October of 2013 when he remarked, “The NATO Response Force is the spearhead of this Alliance; a rapid-reaction group able to defend any ally, deploy anywhere, and deal with any threat.”¹ In concept, the NRF represents a significant effort to transform the NATO alliance to defeat modern threats.

However, the NRF stands in contrast to the SAC program in several ways. First, the overall performance of the NRF since its inception in 2004 is marginal at best. Dr. Jens Ringsmose of the University of Southern Denmark described the NRF as a “qualified failure: although the initiative has had an irrefutable transformational impact on the Alliance, lack of concrete troop commitments and disagreement as to the force’s operational role have largely eroded its credibility.”² As this chapter explains, the NRF is stuck in the “transition to operations” phase of the regime life cycle. Second, unlike the SAC program, the NRF is a

¹ NATO Press Release, “Sweden to Join NATO Response Force and Exercise Steadfast Jazz,” 14 October 2013, http://www.nato.int/cps/en/natolive/news_104086.htm (accessed 28 January 2013).

² Jens Ringsmose, “NATO’s Response Force: Finally Getting it Right?” *European Security* 18, no. 3 (September 2009), 288.

nested regime under the NATO superstructure. As a result, NATO imposes principles and norms that clash with the NRF's charter. Finally, the NRF differs from the SAC program in its mission set. Generally stated, the NRF must deal with any threat, defend any ally, anywhere, up to and including using force against an adversary. Consequently, a rapid political consensus is nearly impossible considering the high risk and the varying interpretations of the just and necessary use of force among the NATO members.

Background

The Balkan wars in the 1990s and the post 9/11 effort to overthrow the Taliban government in Afghanistan highlighted the growing "transatlantic capabilities gap" between the United States and its European partners.³ NATO launched the Defense Capabilities Initiative in 1999 to address the gap. The Allies designed DCI to improve the European NATO members' combat capability and deepen their commitment to a deployable force posture, but the initiative ultimately failed.⁴ Following 9/11, then-US Secretary of Defense Donald Rumsfeld warned in 2002, "If NATO does not have a force that is quick and agile, which can deploy in days or weeks instead of months or years, then it will not have much to offer the world in the twenty-first century." Three months after these comments, the Alliance convened a transformation summit in Prague, where the various heads of state endorsed the concept of the NRF.⁵

³ The transatlantic capabilities gap is noted in various journals, most notably documented by Charles Barry and Hans Binnendijk, "Widening Gaps in U.S. and European Defense Capabilities and Cooperation," *Transatlantic Current* 6, National Defense University (July 2012): 1.

⁴ For more information on the Defense Capabilities Initiative, see Sten Rynning, *NATO Renewed: The Power and Purpose of Transatlantic Cooperation* (New York: Palgrave Macmillan, 2005) 102-108.

⁵ Allied Joint Force Command Naples Website, "NRF FAQs," <http://www.jfcbs.nato.int/page169621516.aspx> (accessed 28 January 2015).

The NRF progressed swiftly from this point forward. In June 2003, NATO's defense ministers approved Military Concept 477, the NRF's governing document, and a detailed implementation plan. A year later, at the Istanbul Summit in June 2004, the NATO members agreed on the NRF's mission set.⁶ Mission definitions included the following broad areas:

- Immediate response capability for conducting collective defense of Alliance members in the event of an Article V operation
- Crisis management operations
- Acting as the initial force deployment as a precursor to deployment of a much larger force
- Peace support operations
- Preservation of territorial integrity
- Disaster relief
- Protection of critical infrastructure⁷

The current NRF construct consists of three parts: a command and control element from the NATO command structure, an immediate response force (IRF) of up to 13,000 land, air, and maritime troops, and a supplemental response forces pool (RFP) containing a broad spectrum of combat and support capabilities.⁸ The very high readiness element is the fixed-scale IRF, designed for initial response to a crisis. The RFP, on the other hand, has no fixed scale. It is as big or small as nations wish to make it, and nations contribute to the RFP under flexible terms and

⁶ NATO Official Website, "Topic: NATO Response Force," 2 October 2014, http://www.nato.int/cps/en/natolive/topics_49755.htm (accessed 28 January 2015).

⁷ NATO Allied Command Operations Official Website, "The NATO Response Force," under the section titled "NRF Tasks," <http://www.aco.nato.int/page349011837.aspx> (accessed 28 January 2015).

⁸ NATO Allied Command Operations Official Website, "The NATO Response Force," under the section titled "NRF Tasks."

conditions.⁹ Nations assign forces to the NRF on a rotational basis, starting with a 6-18 month pre-training period followed by 6 months of NATO exercises, and finally a standby period of 12 months.¹⁰

For decisions related to employment, NATO mandated that the NRF adopt existing NATO processes and procedures. Under the terms of the NATO treaty, Allies issue a “transfer of authority” signal that places pledged national forces under the Supreme Allied Commander Europe’s (SACEUR) operational control. SACEUR typically delegates operational control to an Allied Joint Force Commander. Component headquarters then exercise tactical command and control (C2) of their respective NRF forces.¹¹

The NATO Secretary General and the SACEUR declared initial operational capability (IOC) on 13 October 2004, and toward the end of 2005, the NRF launched humanitarian support missions in response to Hurricane Katrina and the earthquake in Pakistan. Following the major live exercise, Steadfast Jaguar in 2006, the NATO Secretary General declared full operational capability (FOC) for the NRF at NATO’s Riga Summit. The swiftness of the NRF’s progress from concept to FOC seemed to rival that of any multinational partnership, as NATO Secretary General de Hoop Scheffer boasted about the NRF providing the Alliance an “unprecedented capability.”¹²

⁹ Headquarters Allied Rapid Reaction Corps (NATO) Website, “NATO Response Force (NRF),” <http://www.arrc.nato.int/alliedrapidreactioncorps/nato-response-force.aspx> (accessed 29 January 2015).

¹⁰ Headquarters Allied Rapid Reaction Corps (NATO) Website, “NATO Response Force (NRF),” <http://www.arrc.nato.int/alliedrapidreactioncorps/nato-response-force.aspx> (accessed 29 January 2015). The standby period went from 6 to 12 months in 2012. As specified in Military Concept 477, the pace of rotations was meant to facilitate common operating standards and interoperability among the Alliance members.

¹¹ Sten Rynning, “A New Military Ethos? NATO’s Response Force,” *Journal of Transatlantic Studies* 3 no. 1, 5.

¹² NATO Online Library, Closing Press Conference by NATO Secretary General Jaap de Hoop Scheffer, 29 November 2006.

However, concerns emerged shortly after the FOC declaration. As Ringsmose documented, critical shortages plagued the regime from the start and continued well after the FOC declaration. In fact, the SACEUR would not have been able to declare FOC without the US military filling the gaps at the last minute with a force the size of an Expeditionary Strike Group. The NRF manning level was at 82 percent in 2006, and dropped further to just 66 percent in the summer of 2007.¹³

The inadequate fill rates and dismal readiness grades led to multiple revisions of the NRF construct in 2007 and again in 2009, coinciding with a lack of real-world employment of the capability in response to crises. The revisions called for scaling down the original 25,000-troop requirement to the smaller IRF of “up to 13,000” troops, supplemented by the open-ended RFP. The restructuring also resulted in a new, more generalized description of the NRF’s mission statement to allow for less rigor and accountability in readiness reporting.¹⁴ What remains an instrument designed to be a force for both global operations and collective defense suffers from strategic confusion over its specific purpose and implementation.

Judging Success – Effectiveness and Resilience

In terms of both effectiveness and resilience, the NRF failed to achieve success. In effectiveness, the NRF has consistently fallen short in its effort to satisfy the full range of designated missions. Although the NRF activated and even deployed quickly following concept approval, the list of real-world operations is short and restricted to humanitarian response. In addition, fill rates continue to pose problems for readiness. At one point in 2008, then SACEUR General Craddock even considered it

<http://www.nato.int/docu/speech/2006/s061129d.htm> (accessed 28 January 2015).

¹³ Ringsmose, “NATO’s Response Force,” 294.

¹⁴ Ringsmose, “NATO’s Response Force,” 296.

reasonable to abandon the NRF concept altogether.¹⁵ Also continuing to hinder effectiveness is a lack of political consensus on its employment, especially when the use of force is a factor in the decision.

The NRF's resilience is also questionable. The NRF continues to evolve; yet competing priorities such as ISAF and the European Union's Battlegroups (EU BGs) constantly render the NRF a lower priority relative to other commitments. At its peak, the total ISAF commitment was over 40,000 in 2007.¹⁶ ISAF drained NATO members' combat capability.

Another competing multinational security initiative, the EU BGs, also constantly threatens the NRF's ability to operate. The EU BGs consist of 13 battlegroups, each composed of 1,500 mostly land-based units.¹⁷ Although the EU developed the BGs in hopes of mutually reinforcing the NRF, as Barbé and Johansson-Nogués noted, diverging "identity constellations" and differing perceptions about employment prevent cooperation. The result is two vaguely defined yet similar organizations competing for the same resources. Given the multiple demands and the lack of penalties for under-filling the NRF, nations consistently deem the NRF too costly when weighed against other opportunities.

Phase 1 – Regime Formation

Regime formation took place under the auspices of NATO, motivated by the desire to create a swift response force to combat any threat or crisis. By Aggarwal's definition, the NRF is a nested institution under the NATO superstructure. Consequently, unlike the SAC program, the NATO processes and constraints precluded either regime-specific rules or a governance structure from developing during the formation.

¹⁵ Ringsmose, "NATO's Response Force," 294.

¹⁶ NATO official website, "ISAF Key Facts and Figures Placement," (5 December 2007)

www.nato.int/isaf/docu/epub/pdf/placement_archive/isaf_placemat_071205.pdf (accessed 26 January 2015).

¹⁷ Anna Barcikowska, "EU Battlegroups – Ready to Go?" *European Union Institute for Security Studies: Brief Issue* 40 (2013): 2.

Although the United States proposed the NRF concept, the formation phase lacked a dominant actor to impose the rules and norms on the other actors. Instead, the NRF adopted the existing NATO governance structure and, in particular, the consensus rule for approving operations.

Consequently, the NRF was conceptually at odds with NATO's decision-making process. On one hand, the nations created the NRF to fill a requirement for rapid crisis response. On the other hand, the NATO treaty requires consensus approval from the North Atlantic Council (NAC) before acting on behalf of the Alliance.¹⁸ History shows that NAC approval usually takes weeks and in some cases months. For example, Turkey's request for collective defense in 1991 due to Iraqi aggression took 16 days to approve, despite a UN mandate and world opinion overwhelmingly in favor of collective action against Saddam Hussein and his regime in Iraq.¹⁹ Likewise, NATO military action against Libya in 2011 took approximately two weeks to obtain NAC approval. Despite the common belief that a rapid response force was necessary, the processes imposed by the NATO superstructure prevented the formation of key processes to enable rapid employment.

Phase 2 – Transition to Operations

Transition to operations seemed to go smoothly in the initial stages, but broad political enthusiasm eventually gave way to practical barriers to employment. The NRF went from concept to IOC in less than two years and IOC to FOC in another two years.²⁰ Humanitarian operations in response to Hurricane Katrina and the Pakistan

¹⁸ NATO official website, "Topic: The North Atlantic Council," last updated 11 November 2014, http://www.nato.int/cps/en/natolive/topics_49763.htm (accessed 25 February 2015).

¹⁹ George Robertson, Secretary General, NATO. "Building a Transatlantic Consensus." Remarks to the European Institute, Washington D.C., 20 February 2003.

²⁰ Nicholas Fiorenza, "Ready for Action," *Janes Defence Weekly* (27 September 2006), 51.

earthquake in 2005 offered proof that the NRF could be employed successfully. However, given the resource shortfalls noted previously, Maj Gen Harrell admitted in 2006 that the NRF was not ready to conduct forced entry, its most difficult mission.²¹ This set NATO on a course to revise the NRF construct multiple times, using the NRF only in exercises and as a “test bed” for Alliance transformation.²² Nonetheless, the Pakistan earthquake response remains its last significant deployment.

The NRF’s lack of issue-area specificity stands in contrast to the SAC program and may explain the Alliance’s reluctance to employ the NRF. Since NATO expects the NRF to be prepared for high-end kinetic operations in response to an Article V operation, employing it for operations on the low end exposes the Alliance to risk. Despite an extremely broad mission set, the Alliance has no established method to prioritize competing requirements. This leads to a conservative attitude towards the NRF by both political leaders and military commanders. Former Commander, NATO Allied Air Command Headquarters, Lt Gen Ralph Jodice, II remarked, “We don’t want to use the NRF because we might actually have to use the NRF.”²³ As Nicholas Fiorenza documented in 2006, French diplomats expressed concern that the “misuse of the NRF as an ‘ambulance’ ... will reduce its value for NATO transformation.”²⁴

The difficulty in obtaining a 28-nation consensus on the use of force has also been problematic for the NRF. A quick decision on the employment of the NRF in a kinetic operation is extremely difficult if not

²¹ Fiorenza, “Ready for Action,” 51.

²² NATO Official Website, “Topic: NATO Response Force,” 2 October 2014, http://www.nato.int/cps/en/natolive/topics_49755.htm (accessed 28 January 2015).

²³ Lt Gen Jodice and other NATO senior leaders realized that the NRF was the first responder to an Article V operation. Given this task, they did not want to use the NRF for smaller operations knowing that they had to be prepared for a larger kinetic operation. Lt Gen (ret) Ralph J. Jodice, II, interviewed by the author, 3 February 2015.

²⁴ Fiorenza, “Ready for Action,” 49.

impossible due to the issue of state sovereignty and the use of force. With state sovereignty comes the expectation that states will pursue their own security interests and retain the right to do so. This problem is unique to military regimes, and serves as one of the most significant barriers to success with the NRF. The NATO rules and norms that govern the implementation process are rigid due to the respect for each nation's sovereign decision to use force. Consequently, the requirement for 100 percent consensus before employing the NRF in a kinetic operation is not a principle on which the member nations were willing to compromise. This rigid requirement fundamentally contradicts the core mission of the NRF as a rapidly deployable capability, and continues to undermine the NRF in subsequent phases.

Additionally, if the NRF had approval to use force, it would likely suffer from national caveats like those that hindered NATO's efforts with ISAF in Afghanistan. Each nation has the authority to impose caveats that restrict how military commanders can employ its troops in combat operations. The former SACEUR, Gen John Craddock, expressed his frustration with caveats in 2009, stating they "increase the risk to every service member deployed in Afghanistan and bring increased risk to mission success." They are also "a detriment to effective command and control, unity of effort and ... command."²⁵ However, the caveats are often the only feasible way to break through an impasse and obtain a 28-nation consensus. Gen Craddock recognized that consensus and caveats were both problems in Afghanistan when he remarked, "Words like urgent, rapid, and swift better describe the demeanor and movement of a Galápagos tortoise than action in NATO. Consensus stands in the way of

²⁵ Arnaud de Borchgrave, "Caveats Neuter NATO Allies," *The Washington Times* (15 July 2009), <http://www.washingtontimes.com/news/2009/jul/15/caveats-neuter-nato-allies/?page=all> (accessed 25 January 2015).

agile decision-making. It currently takes NATO 62 weeks to process a submitted *urgent* operational requirement.”²⁶

Lastly, accountability and incentive issues further hindered the transition to operations. Unlike the SAC program, the NRF failed to establish accountability mechanisms to force the nations to satisfy their commitments. In fact, the funding model actually incentivizes nations to commit fewer resources than required. Rather than common funding or consistent cost sharing like the SAC program, funding depends on the amount of forces committed during a given standby period. Should the NRF deploy, those nations with forces committed at that point in time bear the larger share of the cost of operations.²⁷ In 2006, NATO Secretary General Jaap de Hoop Scheffer described this system as a “reverse lottery,” wherein “if your numbers come up, you actually lose money.” Former SACEUR, General James Jones, said the nations have a “significant disincentive” to commit forces based on these requirements and costs.²⁸ While the SAC program offers a definite return on investment to each participating nation in the form of flying hours to justify each dollar spent, the NATO Allies have no way of measuring the return on investment in the NRF.

Other resource shortfalls relate to the NRF’s overlap with the European security and defense policy (ESDP). In 1999, the European Union member countries agreed to create an EU rapid reaction force (ERRF) by 2003, consisting of 60,000 troops available at 60 days’ notice.²⁹ In 2004, the EU approved the concept of “battlegroups”

²⁶ Borchgrave, “Caveats Neuter NATO Allies,” *The Washington Times*.

²⁷ Joris Janssen Lok, “NATO Response Force Falling Short of Target,” *Jane’s Defence Weekly*, 43, Issue 20 (17 May 2006), 5.

²⁸ Fiorenza, “Ready for Action,” 50.

²⁹ Mika Kerttunen, Tommi Koivula, and Tommy Jeppsson, *EU Battlegroups: Theory and Development in the Light of Finnish-Swedish Co-operation*, Research Report no. 30 (Helsinki: National Defense College, 2005), 23.

consisting of approximately 1,500 troops capable of crisis response.³⁰ For some of the EU's non-NATO members, the EU BG concept serves as a potential opportunity to participate in future NRF operations.³¹ Additionally, the NRF and the EU BGs share similarities. Both are meant to be rapid response capabilities. Also, like the NRF, the EU BGs lack a strategic framework and a consensus on when to deploy the battlegroups.³² Given the similarities between the two forces and the high resource requirements, European militaries face a challenge in providing the required resources for the NRF, the EU BGs, and ongoing operations.

Phase 3 – Sustainment

Despite recent efforts to “enhance” the NRF by launching what NATO labeled a new “readiness action plan,” the NRF has not moved into the sustainment phase. The NRF has yet to perform consistently in the manner NATO intended for it, performing only humanitarian response deployments in the early stages of its 12-year life. In response to Russian aggression in Ukraine, in September 2014, NATO announced a new plan to create a very rapid reaction force with pre-positioned equipment and supplies along the eastern front. Admitting that the current NRF would take months to deploy, NATO's new solution is a “spearhead” rapid reaction unit capable of deploying within 2-6 days.³³

The new concept under the readiness action plan involves significant infrastructure, logistics, and C2 reforms to the NRF. The “spearhead” is an interim unit consisting of a brigade-sized force of around 5,000 troops in the land, air, and sea domains. Additionally, six allies – the three Baltic countries plus Bulgaria, Poland, and Romania,

³⁰ Juha Kaitera and Guy Ben-Ari, “EU Battlegroups and the NATO Response Force: A Marriage of Convenience?” *Center for Strategic International Studies* (Washington, D.C., 2008), 1.

³¹ Kaitera and Guy Ben-Ari, “EU Battlegroups and the NATO Response Force” 2.

³² Kaitera and Guy Ben-Ari, “EU Battlegroups and the NATO Response Force” 7.

³³ Brooks Tigner, “NATO Works to Flesh Out Details of New Readiness Action Plan,” *Jane's Defence Weekly*, (9 September 2014).

will create C2 “reception sites.” NATO will test the new concept in 2015, with IOC anticipated in early 2016.³⁴

While these reforms call for significant structural changes, they fail to address the most significant barriers to success. NATO’s readiness action plan does not attempt to narrow the NRF’s broad mission set, nor does it address the shortfalls in the resourcing and funding. Most glaringly, the NRF is still beholden to the NATO approval process for employment. Without addressing these problems, the attempts to finally create a “rapid” response force seem destined to fail.

Other Considerations

While the NRF never lived up to its stated mission, it ultimately succeeded as a vehicle for transformation. NATO never activated the NRF despite opportunities in areas such as Gaza, Darfur, Lebanon, and Libya since its inception. However, the efforts in planning and exercising aided NATO when it conducted military operations.

For example, the NRF certification of the Allied Air Command Headquarters in Izmir, Turkey, entered NATO’s decision process to use it during operations in Libya in 2011. NATO ultimately chose Izmir as Allied Air Command Headquarters because it was certified and on NRF standby at the time. As Lt Gen Jodice noted, policies and procedures were already in place at the start of operations because of the combat capability requirements driven by the NRF.³⁵ The speed and success in implementing NATO forces in Libya depended on the inherent, built-in C2 structure that was already tested and proven through the NRF certification process. Without the efforts within the NRF construct the smooth transition to a NATO-led operation in Libya would not have been possible. As this example proves, the NRF provides secondary benefits in the form of an exercise test bed and an interoperability catalyst.

³⁴ Brooks Tigner, “NATO Defence Ministers Approve Key Elements of Readiness Action Plan,” *Jane’s Defence Weekly*, (6 February 2015).

³⁵ Lt Gen (ret) Ralph J. Jodice, II, interviewed by the author, 3 February 2015.

Conclusion

The flagging NRF stands in sharp contrast to the successful SAC program when examining the variables present or absent in each of the regimes. The SAC program benefited from a dominant actor imposing the rules and implementing a system of accountability, while as a nested institution the NRF, NATO forced it to adopt its processes and procedures. Consequently, NATO's requirement for consensus and the process to obtain it limits how quickly the NRF can respond to crises. Additionally, the presence of the issue-area specificity variable contributes to success in the SAC program, while the absence of specificity serves as a significant barrier to cooperation in the case of the NRF.

A factor related to issue-area specificity that requires specific mention is the use of force in a military regime. On one hand, the non-kinetic nature of the SAC's airlift mission allows for complete agreement on the use of the airlift assets. The use of airlift offers a low political cost, and often comes with high rewards. In contrast, political sensitivities and differences of opinion on the employment of the NRF for kinetic operations result in political vagueness and strategic confusion.

As Clausewitz asserted, war is an extension of policy by other means, but policies differ from state to state, even in a group of liberal democracies. States widely view the decision to engage in kinetic military operations as a sovereign right, subject to a wide range of interpretations and procedures. Obtaining consensus on the use of force does not happen quickly, especially when some nations require parliamentary approval before giving NATO consent to use force.

Despite the challenges and setbacks, NATO is still trying to structure the NRF in a way that provides value to the Alliance and its members. As Robert Keohane noted, international regimes embody sunk costs. Regimes are costly to form, and the costliness alone makes a

regime important.³⁶ The NRF is no different; NATO has spent a tremendous amount of effort and capital building a relevant regime. Therefore, despite a lack of perceived value to the states over the life of the regime, the NRF persists.



³⁶ Robert O. Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton: Princeton University Press, 1984), 102-103.

Chapter 4

Case 3 – Wideband Global SATCOM

The Wideband Global SATCOM (WGS) program at a glance looks nothing like the previous two programs. Functionally, it involves a capability and a domain that are distinctly different from the other physical domains. These facts notwithstanding, the highly successful WGS program as an international regime shares the same characteristics that contribute to the success of the SAC program.

First, like the SAC program, the WGS program relies on a dominant actor to impose the rules and norms on the other actors. Second, the regime benefits from issue-area specificity as it centers on a finite, well-defined data and communications capability. Third, the WGS program well serves the actors' self-interest, with each actor earning a definite return on investment in the form of super-high frequency bandwidth for its respective contributions. Finally, the WGS program offers a non-kinetic capability that carries an associated low political cost and economic benefit to the actors. Consequently, political leaders accepted the delegation of operational employment on a day-to-day basis down to operational commanders.

Background

The USAF initiated the WGS program as a “gap filler” to provide a bridge between the US DoD's existing wideband satellite capability, known as the Defense Satellite Communications System (DSCS), and a “future wideband” system, which never materialized. The USAF awarded the initial contract for the “Wideband Gapfiller Satellite” in January 2001 for three satellites. In 2006, the name changed to Wideband Global SATCOM, and the Air Force put plans in place to buy three additional

satellites.¹ WGS currently serves as one of four primary systems that comprise the DoD's MILSATCOM architecture that satisfies requirements for various frequency ranges. WGS operates in the super-high frequency (SHF) range.²

In 2007, the US government signed a bilateral Memorandum of Understanding (MOU) with the government of Australia. In broad terms, by providing funds that would cover the production and launch of the sixth satellite in the WGS constellation, the agreement allowed Australia to receive defined percentages of bandwidth and beams across a six-satellite constellation in return. Under the allocation and sharing provisions in the MOU, Australia's share of bandwidth is made available for its national use. Additionally, the MOU requires Australia to provide a defined percentage of operations and support costs through the life of the program. Although Australia bears a portion of the financial risk, the overall acquisition and sustainment efforts remain the responsibility of the United States.³

The USAF awarded subsequent contracts in 2010 to the WGS program's prime contractor, Boeing, for satellites WGS-7 through WGS-10.⁴ In 2012, the United States entered a multilateral agreement with

¹ Mark Spiwak, Boeing WGS Program Manager, 2009 Aviation Week Program Excellence Award submission http://events.aviationweek.com/programexcellence/files/2009/Boeing_WGS_SysLvl_Prod%20&%20Sustain.pdf (accessed 25 February 2015).

² Maj Bryan Eberhart, USAF, MAJ Kenneth Kemmerly, USA, and Maj Paul Konyha, III, USAF, "Satellite Communications," in *AU-18 Space Primer*, (Maxwell AFB, AL: Air University Press, September 2009), 186.

³ Memorandum of Understanding Between the Department of Defense of the United States of America and the Department of Defence of Australia Concerning Joint Production, Operations, and Support of Wideband Global Satellite Communications, (US Department of State: Treaty Affairs document no. 107486, 14 November 2007), <http://www.state.gov/documents/organization/107486.pdf> (accessed 25 February, 2015), 8 [hereinafter as MOU with Australia].

⁴ US Air Force, *Selected Acquisition Report (SAR): Wideband Global SATCOM (WGS)*, as of FY2015 President's Budget (Washington D.C.: Department of the Air Force, April 2014), 5.

Canada, The Netherlands, Luxembourg, Denmark, and New Zealand. Like the Australia partnership, the multilateral MOU specifies the terms of the member nations' respective financial contribution in proportion to their specific national needs. In this case, the total financial contribution for all five nations in the multilateral MOU equates to the cost of the ninth satellite (WGS-9).⁵

The WGS system provides a “quantum leap” in communications capacity, connectivity, and flexibility for US military forces and foreign partners.⁶ WGS provides service in the X and Ka-band frequency spectrums, including a new 2-way Ka-band communication capability. WGS is the DoD's highest capacity communication satellite constellation – just one WGS satellite provides more SATCOM capacity than the entire DSCS constellation it will eventually replace.⁷ WGS enables high-speed data transfer, including transmission of streaming video and sensor data to support the high demand from airborne intelligence, surveillance, and reconnaissance platforms.⁸ The capability reduces what was previously a complete reliance on commercial SATCOM in this spectrum.⁹

The Air Force launched satellites 1-6, which are operational. WGS-1 launched in 2008, with IOC declared in January 2009. The USAF declared FOC in March 2014. Boeing is currently in full production on the final four satellites, with WGS-7 scheduled for launch

⁵ Memorandum of Understanding Among Canada, Denmark, Luxembourg, The Netherlands, New Zealand, and the United States Concerning Joint Production, Operations, and Support of Wideband Global Satellite Communications, (Washington D.C.: US Department of Defense, 2012), 11 [hereinafter as Multilateral MOU].

⁶ “U.S. Air Force Fact Sheet: Wideband Global SATCOM (WGS),” (Los Angeles AFB: February 2014) http://www.losangeles.af.mil/library/factsheets/factsheet.asp?id_5333 (accessed 24 February 2015).

⁷ “U.S. Air Force Fact Sheet: Wideband Global SATCOM (WGS)”

⁸ Spiwak, 2009 Aviation Week Program Excellence Award submission.

⁹ US Department of Defense, *Unmanned Aerial Vehicles Roadmap 2002-2027* (Washington, DC: Office of the Secretary of Defense, December 2002), 107.

in July 2015.¹⁰ Compared to costs for access to commercial providers, WGS pays for itself more than four times over based on a nominal 14-year mission life.¹¹

Judging Success – Effectiveness and Resilience

In terms of effectiveness, the WGS program is a resounding success as an international regime. Functionally, WGS has delivered to the US and its partners exactly what it set out to provide in the MOU and other governing documents. Typical throughput for each WGS satellite meets the requirement for between 2.1 gigabits per second (Gbps) and 3.6 Gbps, far surpassing the DSCS III satellite's maximum throughput of 0.25 Gbps.¹² By capitalizing on compatibility with existing wideband ground and user terminal infrastructure, WGS provided immediate access to combatant commanders and warfighters once fielded.¹³ Also, using the new "Cross-banding" capability, ground forces using an X-band terminal can communicate with other forces who are using a Ka-band terminal. This vastly improves speed and access of communications in areas like Afghanistan.¹⁴

Additionally, WGS consistently satisfies the commitments to foreign partners under the terms of the two MOUs, providing a reliable

¹⁰ US Air Force, *Selected Acquisition Report (SAR): Wideband Global SATCOM (WGS)*, as of FY2015 President's Budget (Washington D.C.: Department of the Air Force, April 2014), 6.

¹¹ Spiwak, 2009 Aviation Week Program Excellence Award submission.

¹² Boeing Press Release, "Transformational Wideband Communication Capabilities for the Warfighter," http://www.boeing.com/defense-space/space/bss/factsheets/702/wgs/wgs_factsheet.html (accessed 24 February 2015).

¹³ Boeing Factsheet, "Backgrounder: Wideband Global SATCOM," http://www.boeing.com/assets/pdf/defense-space/space/bss/factsheets/702/wgs/docs/Bkgd_WGS_1013.pdf (accessed 24 February 2015).

¹⁴ Derald Franklin, "Space to Grow: New Satellite Communications Operations Center Maximized capabilities of Wideband Global SATCOM Satellites," *Army Acquisition Logistics and Technology Magazine* (US Army Acquisition Support Center: July 2011), http://asc.army.mil/docs/pubs/alt/2011/3_JulAugSep/articles/39_Space_to_Grow_201103.pdf (accessed 25 February 2015). 40-41.

and cost-effective capability. The agent responsible for implementing the operational and technical aspects of the two MOUs, US Strategic Command J66 (USSTRATCOM/J66), indicated that the program has *never* had an instance of an inability to meet assured access requirements.¹⁵ By investing in the project up front, foreign partners avoided the expensive and ever-increasing cost of leasing commercial satellite bandwidth.¹⁶

In terms of resiliency, the program is still young, but some early indicators point to a robust international regime that persists despite changes in the external environment. Satellite systems such as WGS typically carry extremely high production and sustainment costs. Acquisition costs alone exceed \$3 billion on the WGS program.¹⁷ Despite the high costs, the WGS program continued acquisition and production efforts through recent budget constraints and sequestration cuts. In 2014, the USAF received funding for a “resiliency upgrade,” giving the WGS system the capability to locate and neutralize ground-based jamming threats.¹⁸

Finally, the regime demonstrates resiliency through its flexibility to expand with either permanent or temporary members. The WGS program expanded from two to seven permanent partners in 2012. The regime also has the built-in flexibility to expand the regime as demand

¹⁵ Randy Eshelman, Deputy, International Affairs and Policy Branch, USSTRATCOM/J664, interviewed by the author, 23 February 2015.

¹⁶ Canada’s Armed Forces reported investing \$337.3 million in WGS. In a news release, they reported spending \$25 million/year on SATCOM requirements that are expected to increase significantly over the next 20 years. See National Defence and the Canadian Armed Forces, “Canada’s Participation in the Wideband Global Satellite Communications System,” (17 January 2012) <http://www.forces.gc.ca/en/news/article.page?doc=canada-rsquo-s-participation-in-the-wideband-global-satellite-communications-system/hgq87xyn> (accessed 26 February 2015).

¹⁷ US Air Force, *Selected Acquisition Report (SAR): Wideband Global SATCOM (WGS)*, (Washington D.C.: 2014), 13.

¹⁸ Department of Defense, *PB 2015 Air Force*, RDT&E Budget Item Justification: Wideband Global SATCOM, (R-1 Line #89), 1.

from other allies dictates. USSTRATCOM maintains standing mechanisms called equivalent value exchange agreements that could allow non-WGS partners access to the WGS system by providing the United States a non-monetary, equivalent value service or capability in exchange. Interoperability and surge capacity enable this flexibility. USSTRATCOM further indicated that it is not opposed to adding partners in the future.¹⁹

When measured against effectiveness and resilience, the WGS program is a successful military regime. The factors that contribute to the success of the WGS program share remarkable similarities with those in the SAC program. The following sections document those factors in each of the three phases.

Phase 1 – Regime Formation

International regime formation for the WGS program took place under the conditions of an imposed regime, whereby the United States leveraged its political power to influence the regime from the start. As both MOUs specify, the United States maintains overall responsibility for the acquisition, operation and sustainment of the WGS satellites. No equipment changes ownership through the normal foreign military sales process; foreign participants gain access to US-owned equipment through cooperative partnership only.

The United States as the dominant actor effectively imposed its preferred rules and norms on the other actors in this phase. Examples include US DoD tactics, techniques, and procedures, technical support, and business processes. Through the MOU, the United States also retains the authority to approve further expansion of the regime and configuration of the WGS space segment. Moreover, in case of overlapping requests, foreign participants are subject to the US DoD

¹⁹ Randy Eshelman, Deputy, International Affairs and Policy Branch, USSTRATCOM/J664, interviewed by the author, 23 February 2015.

priority scheme, with conflicts resolved in accordance with the US's priority-based adjudication process.²⁰

Like the SAC program, the MOUs for the WGS program established the requirement for a Steering Committee (SC) composed of representatives from each nation to provide executive-level guidance and oversight in matters pertaining to finances, acquisition, and operations support. The SC meets annually and monitors the overall implementation and effectiveness of the MOU, adjudicating on matters brought forth by subordinate working groups. However, the MOU delegates day-to-day operations-related aspects of the program through USSTRATCOM/J66.²¹

Lastly, regime formation required a large, up-front investment from the foreign participants to help cover acquisition costs, as well as continuing monetary commitments for operations and support. Like the SAC program, such high initial investment costs increased the incentive to employ the capability and realize a return on investment. Fortunately for participants in the WGS program, return on investment occurred quickly. This study discusses that rapid transition in the next section.

Phase 2 – Transition to Operations

The smooth transition from regime formation to operations appears to have occurred due to interoperability and existing infrastructure; however, in a broader sense, at the source of the transition is a well-defined, measurable capability linked to a definite requirement. In other words, issue-area specificity is the foundation for the regime's ability to function operationally. In this case, the nations coalesced around the issue-area of global, wideband satellite access. Like the SAC program, buying into the regime earned the participants bandwidth access to be used at their discretion. Similar to airlift, the clear-cut costs and benefits of the WGS system are easy to calculate. The nature of the

²⁰ Multilateral MOU, 53.

²¹ MOU with Australia, 12.

wideband capability allows for discrete performance data and cost information in comparison to commercial providers.

Additionally, demand for the capability made it a low-risk political necessity. Purchasing bandwidth on an as-required basis from commercial sources was sufficient in the past for most foreign participants, but cyber-security concerns, increasing costs, and expanding future requirements forced the foreign participants to consider other options with a sense of urgency.²² As a non-kinetic, non-destructive capability, the WGS program offered the opportunity to satisfy an immediate need in an issue-area with none of the political risk associated with the use of force.

Phase 3 – Sustainment

In an area of low political risk and high economic and operational benefits, delegated authority is politically acceptable to all actors in the regime. Combined with the high interoperability, existing US operating procedures, and existing infrastructure, foreign participants took advantage of the capability immediately. All three “segments” of the WGS system – the space segment (satellites), control segment (operators), and terminal segment (users) – integrated seamlessly with international users accepting US practices for system as a whole.²³

Recalling the usage and knowledge variables from Chapter 1, in this case the preexisting body of theory and information on satellite communications enabled the rapid, seamless integration that drove the regime quickly to the sustainment phase. Previous reliance on

²² National Defence and the Canadian Armed Forces, “Canada’s Participation in the Wideband Global Satellite Communications System,” (Government of Canada: 17 January 2012)

<http://www.forces.gc.ca/en/news/article.page?doc=canada-rsquo-s-participation-in-the-wideband-global-satellite-communications-system/hgq87xyn> (accessed 26 February 2015).

²³ US Air Force, “U.S. Air Force Fact Sheet: Wideband Global SATCOM (WGS),” (Los Angeles AFB: February 2014)

http://www.losangeles.af.mil/library/factsheets/factsheet.asp?id_5333 (accessed 24 February 2015).

multinational commercial satellites by all actors provided what Ernst Haas called a “fund” of shared knowledge that allowed the regime to benefit from “cognitive convergence.” Like the SAC program, these patterns of behavior help bolster the perception of the regime’s legitimacy.

Lastly, the WGS program benefits from autonomy. It lacks a higher-level institution like NATO to impose pre-existing norms and principles on the regime. The two MOUs are stand-alone governing documents for the regime. Additionally, the WGS program’s Steering Committees exercise executive-level oversight with the authority to manage the program while beholden to no one but the nations that each SC representative serves.

Other Considerations

The WGS program has the simplest of resource commitments, since equipment remains in US possession and commitments are only financial. Both MOUs contain provisions for foreign partners to place “cooperative project personnel” (CPP) in the Acquisition Project Office, the Operational Project Office, and/or the operations centers. However, assigning CPP to the “parent” participant – typically the United States – is at the discretion of the participant providing the personnel. No such commitment is obligated.²⁴ In theory, this program allows foreign participants to benefit from the experience gained by working alongside US personnel in various aspects of the program. While Australia has provided personnel under the CPP provisions, access restrictions make it difficult for the other participants to take full advantage of the benefit at this time.²⁵

Without a firm manpower or equipment obligation to the regime, the WGS program lacks the built-in economic penalties that are present

²⁴ See MOU with Australia, 57, and Multilateral MOU, 46, for details on CPP.

²⁵ Randy Eshelman, Deputy, International Affairs and Policy Branch, USSTRATCOM/J664, interviewed by the author, 23 February 2015.

in the SAC program. Nonetheless, it shares the same structure of high up-front investment costs. Moreover, in contrast to the NRF, the WGS program provides distinct economic and operational benefits. Thus far, these factors in combination are sufficient to prevent the participants from defaulting on their commitments.

Conclusion

Functionally, the WGS capability differs drastically from the airlift capability provided through the SAC program; however, in terms of the variables that contribute to success in international regimes, the two share remarkable similarities. First, the WGS regime formed with a dominant actor imposing its rules and norms on the other actors. It lacks a higher-level institution, and therefore the MOU architects had autonomy in the regime formation phase to establish rules and norms that matched the regime's intent.

Additionally, the WGS program benefited from a narrowly defined issue-area that corresponded with an associated return on investment for every dollar contributed to the program. The WGS program offers a non-kinetic, high-demand capability that carries low political risk. Since the participants could use the capability for their own national purposes, the decision to participate was more an economic decision than a security cooperation endeavor. Participants weighed the investment cost for the WGS program with the anticipated costs of leasing commercial satellites in the future. The capability in return for the investment is measurable, available, and linked to a definite requirement.

Like the SAC program, the WGS program is successful as an international military regime in terms of resilience and effectiveness. The similarities between the two successful programs stand in contrast to the struggling NRF and suggest that certain variables must be present to ensure success. The following chapter summarizes the results of the three case studies and highlights those variables that offer the most explanatory power for regime success. Finally, the chapter concludes

with a discussion on requirements for success in future military regimes and recommendations for further research.



Chapter 5

Conclusions and Proposed Framework

Opportunities and requirements to engage in cooperative military efforts seem likely to increase in the future. The recent USAF strategic planning document titled, “Air Force Strategic Assessment, 2014-2034” commented on this likelihood, stating: “In cooperation with other US government departments and agencies, the DoD and intelligence community will have greater opportunities to build on existing international and commercial relationships as well as develop new partnerships. In a constrained fiscal environment, bilateral and multilateral cooperation with key allies and partners may result in mutually beneficial activities focusing on space policies, cyberspace policies, architectures, data sharing, surveillance systems, and flight safety and cost-sharing issues.”¹ Additionally, in response to increasing opportunities for cooperation, the USAF’s 30-year strategy calls for the Air Force to “invigorate our commitment to international like-minded Airmen who can build and sustain global partnerships.” The 30-year strategy also acknowledges the increasing benefits of “strategic partnering.”²

The strategic guidance would lead one to believe that any effort to partner with allies is a worthwhile endeavor; unfortunately, history proves otherwise. The USAF’s guidance suggests that partnering with allies is the only affordable way to survive in the future; however, this study indicates that a blind commitment to partnerships may be unaffordable. In practice, some multinational endeavors succeed, while

¹ US Air Force, *Air Force Strategic Assessment, 2014-2034*, (Washington D.C., 2014), 23.

² US Air Force, *America’s Air Force: A Call to the Future*, (Washington D.C., July 2014), 13.

other regimes never get off the ground despite repeated efforts and expenditure of capital.

In light of these realities, both the USAF and the DoD as a whole require a framework to evaluate potential international military partnerships to determine the likelihood of success. This determination needs to occur well ahead of any engagement to initiate a regime, and certainly prior to any commitment of resources. As the NRF proves, not all partnerships are beneficial, even when the participating nations possess common goals and underlying ideals. A flawed regime can lead to years of frustration and wasted resources on an endeavor that is unlikely to succeed. If international regimes are as vital to the future as the strategic guidance anticipates, the DoD and the USAF must get it right by engaging in those regimes expected to succeed while avoiding those regimes destined to fail.

This concluding chapter proposes such a framework based on the results and analysis of the three case studies in international military regimes. The next section gives a brief summary of the case study methodology and results. Based on the case study results, the following section proposes a “framework for success” in military regimes. Finally, the chapter concludes with recommendations for further research.

Summary of Case Study Methodology and Results

The three case studies include the multinational C-17 airlift consortium known as the SAC program, the Wideband Global SATCOM (WGS) program, and the NATO Response Force (NRF). Each case study investigated the presence of seven possible independent variables – egoistic self-interest, political power, norms and principles, nested institutions, usage and custom, knowledge, and issue-area specificity – against one dependent variable, regime success. Since regimes typically follow a life-cycle pattern, the case studies tracked the presence of the independent variables in each of the three distinct phases of a regime’s

life. The three phases consist of regime formation, transition to operations, and sustainment.

The SAC program represents a successful multinational partnership in terms of both effectiveness and resilience. In the regime formation phase, the program's largest investor, the United States, acted as the dominant actor in the regime. In this phase, the United States took advantage of its political leverage by imposing rules, norms, and economic incentives to encourage participation. Nations desiring to take part in the regime had no choice but to accept US operating procedures and business practices. Furthermore, the participants agreed to up-front investment costs and monetary penalties if any member failed to provide its share of required resources. The power-based variables, egoistic self-interest and political power, played a significant role in the regime formation. The structure established in this "imposed regime" laid the foundation for success in subsequent phases of the regime's life cycle.

The SAC program subsequently experienced a swift transition to operations. In addition to the rules and norms established in the formation phase, enabled success in large part by issue-area specificity. In other words, the participants coalesced around a narrowly defined airlift mission that participants connected to a real requirement. Nations could use airlift hours for their own purposes, and the program offered a clear and quantifiable return on investment. Additionally, the low political risk and potential benefits associated with strategic military airlift offered participants an attractive capability.

Finally, the adoption of common customs and procedures in the sustainment phase led to shared expectations, higher operating efficiency, and the perception of legitimacy. This falls under the category of the usage and custom variable. Putting US standards into practice for maintaining and flying C-17 aircraft allowed the unit to train crews and support personnel quickly using proven methods, thereby forming

reinforcing routines and patterns of behavior. Due to the low political risk, the nations delegated operational authority to the HAW/CC through the MOU to maintain standards and execute missions on behalf of the participating nations.

The NRF, on the other hand, has yet to achieve consistent operational success. Despite the early appearance of success and a quick FOC declaration, the regime never effectively transitioned to the sustainment phase. Real-world operations remain few, although NATO has benefited from the NRF as an exercise test bed for operations. In terms of the independent variables, the NRF stands in contrast to the SAC program in several areas.

First, the NRF formed as a nested institution under NATO's authority. Rather than establish new rules and norms based on the unique requirements and intent of the regime, NATO forced the NRF to accept NATO's North Atlantic Council decision-making process for approving operations. As a nested institution, it notably lacks the characteristics of an imposed regime. The consequence of a NATO superstructure is a "rapid response force" whose employment is conceptually at odds with the slow process of obtaining unanimous consent through the North Atlantic Council.

Second, the NRF suffers from a lack of issue-area specificity. Mission definitions for the NRF include seven broad areas from benign peacekeeping and humanitarian operations all the way to high-end use of force for collective defense in the event of an Article V attack against a NATO ally. Differing perceptions on the NRF's priorities further hinder the chances of achieving a consensus on employment. Furthermore, the political risks involved with the use of force guarantee that approval to employ the NRF for kinetic operations will be neither rapid nor straightforward.

Despite constant work to achieve relevance throughout the 12-year life of the NRF, it remains stuck in the "transition to operations" phase.

The last time NATO employed the NRF was in response to the Pakistan earthquake in 2005. Resource shortfalls and competing requirements such as ISAF and the EU Battlegroups continue to plague the NRF. Unlike the SAC program, the NRF failed to require a significant up-front monetary “buy-in” investment, and lacks economic penalties for nations who fail to uphold their resource commitments. Additionally, recent efforts to restructure the NRF in response to Russian aggression in Ukraine fail to address the core issues that impede success. While the efforts involve significant reforms, they do not address the incentives, broad mission set, or approval process for employment.

The third case, the WGS program, represents a capability that functionally stands apart from the other two cases, but in terms of international regime variables, the WGS and SAC programs share remarkable similarities. In terms of effectiveness and resilience, the WGS program is a successful international regime. Additionally, the WGS program exhibits characteristics of an imposed regime with high issue-area specificity centered on a non-kinetic satellite communications capability. The capability provided to the participants – wideband SATCOM bandwidth – is available for each nation’s use, satisfying a definite demand. The positive return on investment satisfies each participant’s egoistic self-interest. Finally, both the WGS and SAC programs benefit from autonomy to execute operations given the low political risk and high payoff that comes from using the capability each respective regime provides.

The WGS program and the SAC program have a few differences, suggesting that some variables, while present in a successful regime, may not ultimately be necessary for success. The WGS program shows evidence of the knowledge variable in ways that is not consistent with the SAC program. The participants in the WGS program all had a common understanding of the costs and benefits of bandwidth in the WGS’s super-high frequency range prior to regime formation. On the other

hand, some members of the SAC program had a limited knowledge of the intertheater airlift and its benefits. In addition, usage and custom seemed to play a much more important role in the SAC program than the WGS program, since the WGS program lacks the manpower component that is present in the SAC program.

Conclusions of the Study

The similarities between the highly successful WGS and SAC programs suggest that, despite their vast functional differences, successful military regimes share causal variables. The particular variables include the power- and interest-based variables of egoistic self-interest, political power, and issue-area specificity. Other knowledge-based variables may play a contributing role, but they are overshadowed by the power- and interest-based variables.

In particular, military regimes require a dominant actor to leverage its political power to form an effective regime. During the regime formation phase, the dominant actor in both of these regimes dictated the rules and procedures to the rest of the actors in the regime. As “imposed” regimes, the SAC and WGS programs exhibit higher accountability, quicker transitions to operations, and more effective policies and procedures for mission execution.

Military regimes also require issue-area specificity centered on a capability that is attractive to the participants both militarily and politically. The capability must be measurable and connected to a real requirement, allowing participants to calculate rationally the costs and benefits in terms of their egoistic self-interest. Capabilities like airlift and satellite communications provide a tangible return on investment while keeping the political risks low in the absence of the direct use of force in the WGS and SAC programs.

On the contrary, regimes that involve the use of force can never achieve issue-area specificity. Return on investment in these types of regimes is impossible to calculate. Additionally, the use of force always

carries high political risks. Differing perceptions on the use of force among states are likely to cause friction. Simply put, outside an existential threat, regimes involving the use of force are convoluted and contentious. While they may be necessary, they will likely be costly and, like the NRF, frustratingly cumbersome.

In some ways, although they are capability-based military regimes in a functional sense, the SAC and WGS programs formed largely due to economic considerations and fall short of “security” regimes. Participants did not directly connect these regimes to use of force considerations. Both regimes formed because the participants deemed them economically beneficial without taking any significant security risks. Absent the use of force, these regimes provide a military capability to the participants, but otherwise stand apart from security regimes formed solely for collective defense motives.

These conclusions serve as a basis for a new framework for strategists who stand at the intersection of military and politics. The following section proposes this new framework and discusses its rationale. Strategists should use this framework to evaluate current and future military partnerships, at a time when the DoD and the USAF seek to expand these types of endeavors.

International Military Regimes: A Proposed Framework

In her critique of the regime concept, Susan Strange made the assertion that regime analysis “risks overvaluing the positive and undervaluing the negative aspects of international cooperation.” She expressed concern about the false impression that international regimes are moving the world beyond the anarchic international system of self-help.³ Indeed, the conclusion from the three case studies is that the

³ Susan Strange, “*Cave! Hic Dragones: A Critique of Regime Analysis*,” in *International Regimes*, ed. Stephen Krasner (Ithaca, NY: Cornell University Press, 1983), 33.

³ Strange, “*Cave! Hic Dragones: A Critique of Regime Analysis*,” 349.

realists' power- and interest-based theories still offer the most explanatory power for the success of military regimes over weaker knowledge-based theories. Consequently, Kenneth Waltz's claim to the persistence and repetitiveness of international politics serves as an anchor for the following framework.

The framework consists of four principles based on the variables deemed necessary for success in the preceding case study analysis. Military strategists should adhere to all four principles. The case studies and a cursory look at other multinational military partnerships suggest that neglecting any single principle leads to partial success or even failure.⁴

The first principle involves separating capability-based regimes from security regimes. This study provides an understanding of what makes security regimes unique from other types of international regimes. In short, the use of force is the characteristic that separates the two types of regimes. In *Man, the State, and War*, Waltz described the uniqueness of international politics, characterized by the high stakes involved with the use of force.⁵ This reality is evident in military regimes. When the use of force is a consideration, this opens up a new set of political risks, procedural constraints, and sovereignty concerns. While the NRF proves that security regimes are possible to a limited extent, the use of force will remain a decision retained by each sovereign state in the foreseeable future. Therefore, participants in regimes involving the use

⁴ A cursory look at a handful of other multinational partnerships – NATO AWACS, EU Battlegroups, ENJJPT, SALIS, and AEHF to name a few – confirms that the variables identified above are indeed necessary and sufficient. One example, the NATO AWACS program, is a nested regime with high issue-area specificity. Consequently, it has achieved only partial operational success. As Col (ret) Shapiro noted in an interview with the author, the program took years to gain approval to operate in Afghanistan, long after NATO committed forces to ISAF. The NATO ISAF mission began in 2001, yet the NATO AWACS did not begin operating in support of ISAF. In this sense, the persistent NATO AWACS program appears to be a partial success as a military regime.

⁵ Kenneth Waltz, *Man, the State, and War* (New York: Columbia University Press, 1959), 205.

of force must acknowledge that employment decisions require a deliberate, consensus approach that they cannot circumvent. The process will seldom be quick in these circumstances.

The second principle involves recognizing the need for a dominant actor who is capable of dictating rules and norms to the other actors in the regime formation phase. In this type of regime, the dominant actor can compel the other participants to conform to those rules and norms that may not be preferred to all actors but ultimately contribute to the success of the regime as a whole. For example, the US dictated the operational processes and norms to the other participants in the SAC program, despite some less-than-agreeable reactions to the mandate. On the contrary, nested regimes cannot establish their own necessary norms and methods of accountability and therefore run the risk of a clash with the higher-level institution's normative superstructure.

The third principle pertains to building the regime around a specific issue-area connected to a definite requirement. As the case studies indicate, issue-area specificity contributes to regime success when the specific capability satisfies a demand from the participants. In this sense, a "common" interest among the participants is actually a common self-interested motive driven by economic costs and benefits. When the issue-area corresponds to a measurable, quantifiable capability, the regime provides a return on investment that supports rational decision-making. In turn, it increases the domestic perception of legitimacy and bolsters the likelihood that nations will continue to cooperate. For example, the Canadian Armed Forces continue to stress the cost savings of participating in the WGS program in public releases. They can do an "apples-to-apples" comparison to commercial leases and

justify their participation economically.⁶ Most importantly, the program provides a specific capability that is in high demand.

The fourth principle is an imperative to recognize the importance of establishing incentives for participation. Significant up-front monetary investment requirements in both the SAC and WGS programs sparked a political urgency among the participants to begin operating quickly in order to justify the financial commitment to their respective nations. Additionally, in the case of the SAC program, ongoing monetary penalties for manpower shortfalls provide a negative incentive for nations to contribute their required manpower commitment. In contrast, the NRF resource model actually incentivizes participants to do the opposite. Since the provider of forces bears the cost and the risk in the event that NATO actually employs the NRF, the contributing nations regularly fall short of their requirements. When given the choice to participate in the “reverse lottery” or use their military resources elsewhere, participants regularly choose the latter. This principle requires participants to emphasize appropriate economic incentives at the very start of the regime formation phase and incorporate them in the regime’s governing documents.

Adhering to these four principles does not deny the importance of partnering with allies; rather, it tempers our enthusiasm for partnerships with a realistic outlook for current and future endeavors based on empirical evidence. In short, we must exercise caution when forming those regimes involving the use of force, broad mission sets, and nested institutions. We also must be cognizant of the actual interests served by the regime and the incentive structure that motivates behavior.

⁶ National Defence and the Canadian Armed Forces, “Canada’s Participation in the Wideband Global Satellite Communications System,” (Government of Canada: 17 January 2012) <http://www.forces.gc.ca/en/news/article.page?doc=canada-rsquo-s-participation-in-the-wideband-global-satellite-communications-system/hgq87xyn> (accessed 26 February 2015).

As Strange suggests, when analyzing international regimes, the most fundamental political question deals with the potential net result and for whom. Furthermore, the “*dynamic* character of the ‘who-gets-what’ of the international economy ... is more likely to be captured by looking not at the regime that emerges on the surface but underneath, at the bargains on which it is based.” I hope that the principles discussed in this section provide an effective framework for analyzing the regime that lies under the surface.

Recommendations for Further Research

This analysis leaves the possibility for further research efforts on the topic of international military regimes. One recommendation involves a similar study of another issue area to see how the variables differ as the broad issue-area changes. Such a study would test the hypothesis that military regimes depend on power- and interest-based variables to a greater extent than say, environmental regimes. Successful regimes in other broad issue-areas may have consistent similarities and differences when compared with military regimes. For example, one would expect to see a much more prominent role for the knowledge variable in international regimes dealing with medical issues such as vaccinations. Other broad issue-areas for study include economic and human rights regimes.

Additionally, further research efforts could examine the role of the regime’s size and whether or not it plays a role in the success of the regime. Is there are certain point where the overall regime success begins to degrade as the regime expands? Or is a successful regime’s expansion based solely on physical capacity to take on more partners?

Lastly, further work is required to investigate space regimes as a separate issue-area. As James Clay Moltz contended in *The Politics of Space Security*, space’s unique mix of technical factors and political processes make interdependence a reality in the current political environment. Because of this interdependence, cooperative efforts are

possible in space regimes in ways that are not possible elsewhere.⁷ Furthermore, the growth of the collective body of scientific knowledge of space and its potential makes future cooperation likely. Space as a broad issue-area appears well suited for success, but further research in this area is warranted.



⁷ James Clay Moltz, *The Politics of Space Security: Strategic Restraint and the Pursuit of National Interests*, (Stanford, CA: Stanford University Press, 2008), 46.

Bibliography

- Aggarwal, Vinod K. *Hanging by a Thread: International Regime Change in the Textile/Apparel System, 1950-1979*. Ph.D. dissertation. Stanford University, 1981.
- . “Reconciling Institutions: Nested, Horizontal, Overlapping, and Independent Institutions.” Princeton University, 2005.
<https://www.princeton.edu/~smeunier/Aggarwal%20memo.pdf> (accessed 30 December 2014).
- Allied Joint Force Command Naples Website. “NRF FAQs.”
<http://www.jfcb.nato.int/page169621516.aspx> (accessed 28 January 2015).
- Barcikowska, Anna. “EU Battlegroups – Ready to Go?” *European Union Institute for Security Studies: Brief Issue* 40 (2013): 1-4.
- Barry, Charles, and Hans Binnendijk. “Widening Gaps in U.S. and European Defense Capabilities and Cooperation.” *Transatlantic Current* 6, National Defense University (July 2012): 1-12.
- Boeing Factsheet. “Transformational Wideband Communication Capabilities for the Warfighter.” http://www.boeing.com/defense-space/space/bss/factsheets/702/wgs/wgs_factsheet.html (accessed 24 February 2015).
- Borchgrave, Arnaud de. “Caveats Neuter NATO Allies.” *The Washington Times*, 15 July 2009.
<http://www.washingtontimes.com/news/2009/jul/15/caveats-neuter-nato-allies/?page=all> (accessed 25 January 2015).
- Bull, Hedley. *The Anarchical Society*. New York: Columbia University Press, 1977.
- Dougherty, James E. and Robert L. Pfaltzgraff, Jr. *Contending Theories of International Relations: A Comprehensive Survey*. New York: Longman, 2001.
- Eberhart, Maj Bryan, USAF, MAJ Kenneth Kemmerly, USA, and Maj Paul Konyha, III, USAF. “Satellite Communications.” In *AU-18 Space Primer*, 183-199. Maxwell AFB, AL: Air University Press, September 2009.
- Fiorenza, Nicholas. “Ready for Action.” *Janes Defence Weekly*, 27 September 2006, 51.
- Franklin, Derald. “Space to Grow: New Satellite Communications Operations Center Maximized capabilities of Wideband Global SATCOM Satellites.” *Army Acquisition Logistics and Technology Magazine*, US Army Acquisition Support Center (July 2011): 39-42

- http://asc.army.mil/docs/pubs/alt/2011/3_JulAugSep/articles/39_Space_to_Grow_201103.pdf (accessed 25 February 2015).
- Haas, Ernst B. "Why Collaborate? Issue-Linkage and International Regimes." In *World Politics* 32, 3 (April 1980): 357-405.
- . "Words Can Hurt You: Or, Who Said What to Whom About Regimes." In *International Regimes*, ed. Stephen Krasner, 23-60. Ithaca, NY: Cornell University Press, 1983.
- Hasenclever, Andreas, Peter Mayer, and Volker Rittberger, *Theories of International Regimes*. Cambridge, UK: Cambridge University Press, 1997.
- Headquarters Allied Rapid Reaction Corps (NATO) Website. "NATO Response Force (NRF)." <http://www.arrc.nato.int/alliedrapidreactioncorps/nato-response-force.aspx> (accessed 29 January 2015).
- Heavy Airlift Wing Public Affairs. "Strategic Airlift Capability Heavy Airlift Wing's Year 2014: New Airlift Tasks and a Steady Mission Performance." HAW Press Release, 6 January 2015. <http://www.heavyairliftwing.org/news/strategic-airlift-capability-heavy-airlift-wing2019s-year-2014-new-airlift-tasks-and-a-steady-mission-performance> (accessed 26 January 2015).
- . "Strategic Airlift Capability Program Milestones 2006-2014." <http://www.heavyairliftwing.org/about/SAC%20Milestones%202006-2014.pdf/view> (accessed 26 January 2015).
- Hughes, Llewelyn, Jeffrey S. Lantis, and Mireya Solis. "The Life Cycle of Regimes: Temporality and Exclusive Forms of International Cooperation." *Journal of International Organizations Studies* 5, no. 2 (Fall 2014): 85-115.
- Jervis, Robert. "Security Regimes." In *International Regimes*, ed. Stephen Krasner, 173-194. Ithaca, NY: Cornell University Press, 1983.
- Kaitera, Juha, and Guy Ben-Ari. "EU Battlegroups and the NATO Response Force: A Marriage of Convenience?" *Center for Strategic International Studies*. Washington, D.C., 2008.
- Keohane, Robert O. *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton, NJ: Princeton University Press, 1984.
- Kerttunen, Mika, Tommi Koivula, and Tommy Jeppsson. *EU Battlegroups: Theory and Development in the Light of Finnish-Swedish Co-operation*. Research Report no. 30. Helsinki: National Defense College, 2005.

- Krasner, Stephen. "Regimes and the Limits of Realism: Regimes as Autonomous Variables." In *International Regimes*, ed. Stephen Krasner, 355-368. Ithaca, NY: Cornell University Press, 1983.
- . "Structural Causes and Regime Consequences: Regimes as Intervening Variables." In *International Regimes*, ed. Stephen Krasner, 1-22. Ithaca, NY: Cornell University Press, 1983.
- Lok, Joris Janssen. "NATO Response Force Falling Short of Target." *Jane's Defence Weekly*, 43, Issue 20 (17 May 2006): 5.
- Memorandum of Understanding Among Canada, Denmark, Luxembourg, The Netherlands, New Zealand, and the United States Concerning Joint Production, Operations, and Support of Wideband Global Satellite Communications. Washington D.C.: US Department of Defense, 2012.
- Memorandum of Understanding Between the Department of Defense of the United States of America and the Department of Defence of Australia Concerning Joint Production, Operations, and Support of Wideband Global Satellite Communications. US Department of State: Treaty Affairs document no. 107486, 14 November 2007. <http://www.state.gov/documents/organization/107486.pdf> (accessed 25 February, 2015).
- Memorandum of Understanding Concerning Strategic Airlift Capability (SAC), opened for signature 11 March 2008. US Department of State, Treaty Affairs document no. 129827. <http://www.state.gov/documents/organization/129827.pdf> (accessed 28 December 2014).
- Moltz, James Clay. *The Politics of Space Security: Strategic Restraint and the Pursuit of National Interests*. Stanford, CA: Stanford University Press, 2008.
- Moroney, Jennifer D. P., Jefferson P. Marques, Cathryn Quantic Thurston, and Gregory F. Treverton. *A Framework to Assess Programs for Building Partnerships*. Santa Monica, CA: RAND, 2009.
- National Defence and the Canadian Armed Forces, "Canada's Participation in the Wideband Global Satellite Communications System," (Government of Canada: 17 January 2012) <http://www.forces.gc.ca/en/news/article.page?doc=canada-s-participation-in-the-wideband-global-satellite-communications-system/hgq87xyn> (accessed 26 February 2015).
- NATO Allied Command Operations Official Website. "The NATO Response Force." <http://www.aco.nato.int/page349011837.aspx> (accessed 28 January 2015).

- NATO official website. "ISAF Key Facts and Figures Placement." 5 December 2007.
www.nato.int/isaf/docu/epub/pdf/placement_archive/isaf_placemat_071205.pdf (accessed 26 January 2015).
- . "Topic: NATO Response Force," 2 October 2014
http://www.nato.int/cps/en/natolive/topics_49755.htm (accessed 28 January 2015).
- . "Topic: The North Atlantic Council." 11 November 2014.
http://www.nato.int/cps/en/natolive/topics_49763.htm (accessed 25 February 2015).
- . "Topic: Strategic Airlift Capability (SAC)." 8 April 2014.
http://www.nato.int/cps/en/natolive/topics_50105.htm (accessed 26 January 2015).
- . "ISAF Key Facts and Figures Placement." 1 December 2014.
www.nato.int/nato_static_fl2014/assets/pdf/pdf_2014_12/20141201_141201-ISAF-Placemat-final.pdf (accessed 26 January 2015).
- NATO Online Library. Press Conference by NATO Secretary General Jaap de Hoop Scheffer. 29 November 2006.
<http://www.nato.int/docu/speech/2006/s061129d.htm> (accessed 28 January 2015).
- NATO Press Release. "Sweden to Join NATO Response Force and Exercise Steadfast Jazz." 14 October 2013,
http://www.nato.int/cps/en/natolive/news_104086.htm
 (accessed 28 January 2013).
- Petras, Christopher M. "Serving Two Masters: Military Aircraft Commander Authority and the Strategic Airlift Capability Partnership's Multinational Airlift Fleet." *Journal of Air Law and Commerce* 77, no. 1 (Winter 2012): 105-150.
- Puchala, Donald J. and Raymond F. Hopkins. "International Regimes: Lessons From Inductive Analysis." In *International Regimes*, ed. Stephen Krasner, 61-92. Ithaca, NY: Cornell University Press, 1983.
- Robertson, George, Secretary General, NATO. "Building a Transatlantic Consensus." Remarks to the European Institute, Washington D.C., 20 February 2003.
- Ringsmose, Jens. "NATO's Response Force: Finally Getting it Right?" *European Security* 18, no. 3 (September 2009): 287-304.
- Rynning, Sten. "A New Military Ethos? NATO's Response Force." *Journal of Transatlantic Studies* 3, no. 1, 5-21.

- . *NATO Renewed: The Power and Purpose of Transatlantic Cooperation*. New York: Palgrave Macmillan, 2005.
- Siebert, Bjoern. "Too Big to Fail: The A400M Bail Out." *RUSI Defence Systems*, February 2010, 78-81.
- Spiwak, Mark, Boeing WGS Program Manager. 2009 Aviation Week Program Excellence Award submission.
http://events.aviationweek.com/programexcellence/files/2009/Boeing_WGS_SysLvl_Prod%20&%20Sustain.pdf (accessed 25 February 2015).
- Stein, Arthur A. "Coordination and Collaboration: Regimes in an Anarchic World." In *International Regimes*, ed. Stephen Krasner, 115-140. Ithaca, NY: Cornell University Press, 1983.
- Strange, Susan. "Cave! Hic Dragoness: A Critique of Regime Analysis." In *International Regimes*, ed. Stephen Krasner, 337-354. Ithaca, NY: Cornell University Press, 1983.
- Strategic Airlift Capability Steering Board. *SAC Concept of Operations*, 2 May 2008.
- Brooks Tigner, "NATO Defence Ministers Approve Key Elements of Readiness Action Plan," *Jane's Defence Weekly*, 6 February 2015.
- Tigner, Brooks. "NATO Works to Flesh Out Details of New Readiness Action Plan," *Jane's Defence Weekly*, 9 September 2014.
- Tirpak, John A. "C-17s in Hungary." *Air Force Magazine*, October 2011, 38-42.
- US Air Force. *Air Force Strategic Assessment, 2014-2034*. Washington D.C., 2014.
- . *America's Air Force: A Call to the Future*. Washington D.C., July 2014.
- . *Selected Acquisition Report (SAR): Wideband Global SATCOM (WGS)*. Washington D.C.: 2014.
- . "U.S. Air Force Fact Sheet: Wideband Global SATCOM (WGS)." Los Angeles AFB: February 2014.
http://www.losangeles.af.mil/library/factsheets/factsheet.asp?id_5333 (accessed 24 February 2015).
- US Department of Defense. *PB 2015 Air Force*. Washington D.C.: 2015.
- . *QDR [Quadrennial Defense Review] Execution Roadmap: Building Partnership Capacity*. Washington, DC: US Department of Defense, May 2006.
- . *Unmanned Aerial Vehicles Roadmap 2002-2027*. Washington, DC: Office of the Secretary of Defense, December 2002.

- Waltz, Kenneth. *Man, the State, and War*. New York: Columbia University Press, 1959.
- . *Theory of International Relations*. Reading, MA: Addison-Wesley, 1979.
- Young, Oran R. "Regime Dynamics: The Rise and Fall of International Regimes." In *International Regimes*, ed. Stephen Krasner, 93-114. Ithaca, NY: Cornell University Press, 1983.

